Short-Term Investors, Monitoring Blockholders, and Long-Term Corporate Investment

Simon Gloßner*
Catholic University Eichstätt-Ingolstadt

January 15, 2017

Abstract

This paper investigates the effects of institutional investors on long-term corporate investment, studying corporate social responsibility as an example for such investments. I find that investor horizon strongly matters. Short-term investors exert pressure on managers who, in turn, cut long-term investments. But firms held by long-term investors may not be better off, as poorly monitored managers tend to overinvest when they bear no short-term pressure. Among long-term investors, only those who hold large ownership blocks monitor managers to ensure that they neither under- nor overinvest. Overall, these findings confirm managerial myopia and empire building theory, emphasizing the importance of blockholders.

JEL-Classification: G23; G31; M14
Keywords: Institutional ownership; Investor horizon; Agency problems; Blockholders; Long-term corporate investment; Corporate social responsibility

*Catholic University Eichstätt-Ingolstadt, e-mail: simon.glossner@ku-eichstaett.de, phone: +49 841 9018104, address: Auf der Schanz 49, 85049 Ingolstadt, Germany. I am deeply grateful to my advisor, Thomas Mählmann, for his guidance and invaluable comments. I also thank Roberto Liebscher, Stefan Wittmann, Alexander Danzer, Markus Helmle, and participants of the 14. HVB Doktorandenseminar Süddeutschland for helpful comments. I grateful acknowledge financial support from the PhD scholarship of the Friedrich-Naumann-Stiftung für die Freiheit.

1. Introduction

A large literature in finance blames institutional investors with short-term horizons for inducing managerial myopia (e. g. Shleifer and Vishny (1990); Porter (1992)). Short-term investors pressure managers to increase short-term profits. Managers, in turn, cater to these investors and shift focus from long-term shareholder value maximization. One manifestation of this agency problem is that managers reduce important long-term corporate investments such as spending in research and development (Bushee (1998); Cremers, Pareek, and Sautner (2016)). The same literature further argues that long-term investors would reduce short-term pressure and that managers would therefore make better investment decisions.

This argument assumes that managers who are free from short-term pressure automatically create long-term shareholder value. However, managers may also destroy shareholder value by *overinvesting* in long-term corporate investment. In fact, a prominent strand of literature in finance persuasively argues that managers overinvest because they want to build empires (Baumol (1959); Williamson (1964); Marris (1964)). Shareholders can control empire building by monitoring. However, as monitoring is costly, only institutional investors who hold large ownership blocks in the firm can afford to monitor managers' decisions (Grossman and Hart (1980); Shleifer and Vishny (1986)).

In this paper, I study the effects of institutional investors on long-term corporate investment. Connecting the arguments of managerial myopia and empire building theory, I ask two questions. First, do short-term investors create short-term pressure and negatively impact long-term corporate investment (*managerial myopia hypothesis*)? Second, do managers overinvest when they are not pressured by short-term investors and are not monitored by blockholders (*empire building hypothesis*)? To investigate these questions, I choose corporate social responsibility (CSR) as the setting for empirical tests.[1] CSR provides an excellent opportunity to study managerial investment decisions because every firm has an optimal level of CSR that will maximize profits (McWilliams and Siegel (2001)). In their seminal paper, Bénabou and Tirole (2010) argue that, on the one hand, corporate short-termism often prevents managers from

[1] Based on the arguments of Freeman (1984), I define CSR as corporate actions that are beneficial to the firm's stakeholders (e. g. employees, customers, suppliers), the environment, or the society.

investing in CSR and taking a long-term perspective in increasing profits. On the other hand, agency problems sometimes tempt self-interested managers to invest in CSR activities that destroy shareholder value. This contradiction shows that managers can under- or overinvest in CSR, making CSR a suitable testing ground for studying the influence of institutional investors on long-term corporate investment.

Figure 1 about here.

The findings are illustrated qualitatively in Figure 1. If institutional investors have short-term horizons, they pressure firms to increase short-term profits. Managers react to this pressure by cutting long-term corporate investment. By contrast, if institutional investors have long-term horizons, but do not monitor managers because they hold small ownership stakes, managers tend to overinvest in long-term corporate investment. To avoid excessive spending, some long-term investors must be blockholders who can afford to monitor managers.

I empirically examine managerial investment decisions by running OLS panel regressions on a large dataset of 39,236 firm-year observations containing data about social ratings, institutional ownership, investor horizon, and several firm controls from 1991 to 2013. Social ratings come from the MSCI ESG Database, formerly known as the KLD Database. KLD analysts rate firms based on a variety of environmental, social, and governance (ESG) criteria. I aggregate these ratings into a KLD firm score by counting the firm's strengths and deducting its concerns.

The results show that ownership of short-term investors is significantly negatively correlated with CSR, consistent with the managerial myopia hypothesis. If short-term ownership increases by one standard deviation, then the KLD score decreases between 0.098 and 0.103, which equals about 5% of its sample standard deviation. Ownership of long-term investors, by contrast, is associated with a significant increase in the KLD score. However, the positive effect of long-term ownership on CSR is driven entirely by investors who hold small ownership stakes. In fact, a one standard deviation increase in long-term non-blockholder ownership is associated with an *increase* in the KLD score of between 0.199 and 0.223 (about 9-10% of its sample standard deviation), whereas a one standard deviation increase in long-term blockholder ownership results in a *decrease* of between 0.060 and 0.072. Obviously, managers heavily invest in CSR

only when long-term investors are not blockholders. As it doesn't pay for non-blockholders to monitor and intervene firms' strategies (Shleifer and Vishny (1986)), these findings suggest that unmonitored managers overinvest, consistent with the empire building hypothesis.

The probability that a manager will under- or overinvest in CSR is further directly estimated by fitting a multinomial logit model following the method of Biddle, Hilary, and Verdi (2009). A firm underinvests (or overinvests) in CSR if its KLD score is in the bottom (or top) quartile of its industry-year group conditional on firm size and book-to-market ratio. The log odds reveal that short-term investors increase the probability of underinvestments, whereas long-term non-blockholders increase the probability of overinvestments. Among institutional investors, only long-term blockholders ensure that managers neither under- nor overinvest in CSR.

My findings rely on a causal effect of investor horizon on CSR. We cannot interpret the findings above as causal because long-term investors may well be socially responsible investors who invest in firms with high CSR scores. I address these concerns by conducting first-difference regressions in both directions, finding that changes in KLD scores are not correlated with future changes in investor horizon. Instead, changes in investor horizon significantly affect future changes in KLD scores, suggesting that institutional investors influence CSR.

To further establish causality, I draw on exogenous variation in investor horizon. My first test takes an instrumental variable approach by using the flows of institutional investors' clients as an instrument for investor horizon. Following Cella, Ellul, and Giannetti (2013), this portfolio-level instrument is appealing because it's highly correlated with portfolio-level investor horizon, but it's exogenous from firm-level CSR. My second test is inspired by Aghion, van Reenen, and Zingales (2013). It's a difference-in-difference approach that relies on a firm's exogenous inclusion into the S&P 500 index. An index addition is associated with a 5.0% decrease in short- and medium-term ownership and a 3.3% increase in long-term non-blockholder ownership. Both tests show a similar picture: When ownership changes exogenously from short-term to long-term investors, the result is a significant increase in the KLD score. This provides strong evidence that institutional investors have a causal effect on CSR.

Establishing causality between institutional investors and CSR is an important step in confirming my predictions, however it's of little help in establishing that long-term blockholders

and non-blockholders differently affect CSR. Given the lack of credible instruments for blockholders (Edmans and Holderness (2016)), I rely on many robustness tests to rule out alternative explanations. First, I control for ownership of socially responsible mutual funds. Second, I examine numerous firm variables including firm size, financial measures, business operation variables, capital structure variables, analyst measures, and stock measures. Third, I control for unobserved factors by including industry, firm, and year fixed effects. Fourth, I ensure that KLD is not a biased proxy for CSR by studying shareholder proposals on CSR issues and by investigating firm membership in the Dow Jones Sustainability Index. All robustness tests confirm that long-term blockholders have a significantly less positive effect on CSR than non-blockholders, consistent with the empire building hypothesis.

Next, I turn to cross-sectional evidence based on earnings management (Jones (1991); Dechow, Sloan, and Sweeney (1995)). Drawing on literature that earnings are more managed when managers have a short-term focus (Bergstresser and Philippon (2006); Bolton, Scheinkman, and Xiong (2006)), I use earnings management to test two implications of my predictions. First, the managerial myopia hypothesis implies that short-term investors should have a more negative effect on CSR when managers have higher short-term pressure. Using the absolute value of discretionary accruals to classify firms into low and high earnings management subsamples, I find that firms with higher earnings management are more sensitive to pressure from short-term investors, consistent with my prediction. Second, the empire building hypothesis predicts that managers should overinvest especially when they are free from short-term pressure. Therefore, the monitoring effect of blockholders should be more pronounced when managers do *not* manage earnings. Indeed, this is exactly what I find: Long-term blockholders have a significantly negative effect on the KLD score only in the low earnings management subsample.

The empire building hypothesis also implies that managers overinvest in CSR in particular when they don't have to bear the shareholder value losses resulting from investing too much. Indeed, Jensen and Meckling (1976) demonstrate that managers consume more private benefits, such as having a larger empire, when their ownership stakes in the firm are small. Therefore, monitoring by blockholders should be more important in firms in which insider ownership is lower. By investigating low and high insider ownership subsamples, I find strong evidence that

this implication holds as long-term blockholders significantly reduce the KLD score only in firms that have low levels of insider ownership.

Finally, I test another important implication: If long-term blockholders monitor managers to ensure shareholder value creation, they should encourage managers to specifically invest in CSR activities that are linked to shareholder value. To investigate this implication, I study ESG-related incidents from RepRisk. RepRisk associates a firm with an ESG incident when the news media or the firm's stakeholders accuse the firm of a certain ESG issue (e. g. high environmental pollution).[2] An event study demonstrates that these incidents are value-relevant: An average incident (excluding very mild incidents) results in a shareholder value loss of approximately 33.9 million dollars. Using OLS panel regressions, I find that blockholders have a strong negative effect on these incidents. A one standard deviation increase in long-term blockholder ownership (11%) results in a decrease of the annual shareholder value loss resulting from ESG incidents of 10-12% (about 24-29 million dollars). Moreover, long-term blockholders have a significantly stronger negative effect on ESG incidents than long-term non-blockholders. These findings provide evidence that especially long-term blockholders ensure that managers invest in value-enhancing CSR projects.

This paper contributes to the growing literature about the effects of investor horizon on firms. Several studies investigate the conflict between short- and long-term investors, focusing on firm innovation (Bushee (1998); Chen, Gao, et al. (2015); Cremers, Pareek, and Sautner (2016)), corporate governance (Harford, Kecskés, and Mansi (2016)), firm acquisitions (Gaspar, Massa, and Matos (2005); Chen, Harford, and Li (2007)), CEO turnover (Gao, Harford, and Li (2015)), and corporate policies (Harford, Kecskés, and Mansi (2012); Gaspar, Massa, Matos, et al. (2013); Derrien, Kecskés, and Thesmar (2013)). This literature concludes that long-term investors increase shareholder value by reducing agency problems. This paper, by contrast, emphasizes that when long-term investors mitigate managerial myopia, managers may not make better investment decisions. Instead, if long-term investors are not blockholders, managers tend to overinvest in long-term investments, consistent with empire building theory.

[2]RepRisk covers firms on ESG reputational risks on a monthly basis. This allows to estimate the exact shareholder value loss associated with an incident. KLD scores can't be used in this test because they are not news-based events, but rather are social ratings assigned by KLD analysts. As these ratings are available only on an annual basis, it's difficult to estimate the shareholder value impact of KLD score changes.

The paper is also related to the literature about why firms are socially responsible. Several studies examine this question along different views such as institutional ownership (Graves and Waddock (1994); Dyck et al. (2016); Rubio and Vazquez (2016)), institutional investor characteristics (Johnson and Greening (1999); Hwang, Titman, and Wang (2015)), product market competition (Flammer (2015b)), political orientation of the firm (Di Giuli and Kostovetsky (2014)), ownership concentration (Liang (2014)), and individual and societal preferences (Liang and Renneboog (2016)). I contribute that short-term investors, long-term non-blockholders, and monitoring blockholders heterogeneously influence CSR, explaining prior findings in literature that total institutional ownership has no specific effect on CSR.

The paper proceeds as follows. Section 2 outlines the theoretical framework of the paper. Section 3 describes the data and presents summary statistics. Section 4 provides the results of the baseline regressions and Section 5 presents robustness to alleviate endogeneity concerns. In Section 6, the paper's findings are explained. Finally, Sections 7 and 8 discuss these findings and make conclusions.

2. Theory

In this section, I describe two hypotheses of the influence of institutional investors on long-term corporate investment. I then apply them to long-term investments in corporate social responsibility to generate testable hypotheses.

2.1. Institutional Investors and Long-Term Corporate Investment

Public firms face high information asymmetry between managers and shareholders because ownership and control is separated (principal-agent problem à la Berle and Gardiner (1932) and Jensen and Meckling (1976)). Due to this problem, managers may not act in the best interests of the shareholders and deviate from the optimal level of long-term corporate investment.

Given that long-term corporate investments induce expenses long before they show results in improved profits, managers may reduce long-term investments in order to increase short-term profits. Extensive literature (e. g. Narayanan (1985); Stein (1988); Stein (1989)) argues that managerial myopia is the result of an information asymmetry. As shareholders know much less

about the firm than managers, shareholders often rely on short-term earnings to evaluate the firm's financial performance. Thus, when managers present temporary low earnings due to high long-term corporate investment, they risk wage reductions and even job loss. Indeed, a survey by Graham, Harvey, and Rajgopal (2005) finds that nearly 80% of the 401 surveyed managers would sacrifice long-term value in order to meet short-term targets.

According to Shleifer and Vishny (1990) and Porter (1992), institutional investors serve two roles. On the one hand, they reinforce managerial myopia by frequent trading and fragmented ownership. If managers fear that weak earnings result in short-term investors selling their holdings, short-term targets will be more important for managers. On the other hand, institutional investors with long-term horizons prevent corporate short-termism because they are not discouraged by temporary low earnings. Several empirical studies confirm that long-term investors attenuate the negative effects of short-term investors on firms.[3] Based on these arguments, I predict that a firm will invest less in long-term corporate investment if its shareholders are more short-term oriented (*managerial myopia hypothesis*).

This hypothesis implies that if long-term investors relieve short-term pressure, managers will invest more in long-term corporate investment. But how much will they actually invest when they are free from short-term pressure? One possibility is that managers will invest *too much* in long-term corporate investment. According to a prominent strand of finance literature (Baumol (1959); Williamson (1964); Marris (1964)), entrenched managers excessively invest in the firm in order to build empires. Managers grow the firm beyond optimal level to increase their power or to alleviate career concerns (Jensen (1986); Jensen (1993)). They may also overinvest because they are overconfident in assessing the return to their investment project (Heaton (2002); Malmendier and Tate (2005)) Another reason for excessive spending is that managers continue investing in projects that are not profitable anymore because they don't want to undertake complicated firm changes (Jensen (1986); Bertrand and Mullainathan (2003)).

Excess capacity is often found in firms with substantial financial slack and no internal or external control forces that enforce downsizing (Jensen (1986); Jensen (1993)). One well-known

[3]Long-term investors encourage R&D investments (Bushee (1998); Cremers, Pareek, and Sautner (2016)), improve corporate decision making (Derrien, Kecskés, and Thesmar (2013); Harford, Kecskés, and Mansi (2016)), and improve takeover results (Gaspar, Massa, and Matos (2005); Chen, Harford, and Li (2007)).

control force are shareholders who monitor the manager's actions to overcome agency problems. However, not all shareholders monitor managers because monitoring is costly. Only institutional investors who hold large ownership blocks can afford to monitor managers (Grossman and Hart (1980); Shleifer and Vishny (1986)). Therefore, I predict that managers will invest more in long-term corporate investment when they are free from short-term pressure and when they are not monitored by blockholders (*empire building hypothesis*).[4]

2.2. Long-Term Investments in Corporate Social Responsibility

Bénabou and Tirole (2010) put forward different views on corporate social responsibility, arguing that CSR activities are either a value-enhancing long-term corporate investment (the first and second view) or the result of an agency problem (the third view).

The first view is the "win-win" view. It states that CSR makes a firm more profitable because doing good makes the firm perform better in the long-run. However, according to Bénabou and Tirole (2010), managers often sacrifice long-term shareholder value and good stakeholder relations in order to increase short-term profits. For example, an industrial firm may reduce costs by lowering environmental standards, which would increase short-term profits, but would also create the risk of an environmental incident, hurting the long-term performance of the firm. Chava (2014) demonstrates empirically that firms with more environmental issues bear higher cost of capital. Similarly, managers who don't spend enough on workplace safety increase the risk of costly injuries to employees (Cohn and Wardlaw (2016)). In general, CSR incidents are associated with strongly negative abnormal stock returns, according to Krüger (2015).

Bénabou and Tirole (2010) further note that CSR is not only about taking a long-term perspective in risk reductions, but also about strategically investing in the firm's market position. For example, by treating employees well, managers can increase the motivation of their employees and attract high-skilled employees. Edmans (2011) and Edmans, Li, and Zhang (2016) empirically show that high employee satisfaction generates positive abnormal stock returns in the long-run. Moreover, recent empirical evidence suggests that CSR is

[4]Even if blockholders can't intervene in managers' actions by monitoring, they are still able to reduce agency problems by "voting with their feet" (Admati and Pfleiderer (2009); Edmans (2009)). Blockholders may also facilitate short-selling, which is found to reduce managerial myopia (Massa et al. (2015)).

consistent with shareholder value maximization. For example, by analyzing a large-scale global dataset, Ferrell, Liang, and Renneboog (2016) find that well-governed firms invest in CSR in order to enhance firm value. In addition, Dimson, Karakas, and Li (2015) and Flammer (2015a) demonstrate that the adoption of CSR-related shareholder proposals improves the firm's financial performance.

In the second view of Bénabou and Tirole (2010), managers maximize profits by investing in CSR on behalf of the firm's stakeholders. Because of information and transaction costs, stakeholders don't want to engage in CSR on their own. Instead, they prefer that managers do good for them. Stakeholders are willing to sacrifice some money to further social goals. Examples of this would be: customers paying a higher price for fair-trade products or organic food or, as Brekke and Nyborg (2005) argue, morally motivated employees choosing socially responsible firms. Albuquerque, Durnev, and Koskinen (2016) demonstrate that CSR is a value-enhancing investment in customer loyalty, and Servaes and Tamayo (2013) confirm that CSR increases firm value when customers are aware of CSR.

In contrast to the first two views, the third view of Bénabou and Tirole (2010) regards investments in CSR as a waste of money. They argue that CSR investments that have no positive effect on earnings, nor are in the interest of stakeholders, destroy shareholder value. Managers overinvest in CSR for personal benefits, for example, to create the popular image of a socially responsible manager. Indeed, Cheng, Hong, and Shue (2016) and Masulis and Reza (2015) provide evidence that firms with higher levels of insider ownership (and thus less agency problems) have lower CSR scores and less corporate giving. In addition, Hong, Kubik, and Scheinkman (2012) and Cronqvist and Yu (2015) find that managers invest more in CSR when they have financial slack or when they have female children. Krüger (2015) adds that shareholders respond negatively to positive CSR news when the positive news don't offset a history of negative CSR news.

Applying the hypotheses from the previous section to CSR provides two testable predictions regarding the influence of institutional investors on long-term corporate investment:

1. *Managerial myopia hypothesis*: Short-term investors exert pressure on managers to increase short-term profits. Managers react to this pressure by reducing long-term investments in

CSR. Short-term pressure is relieved by long-term investors.

2. *Empire building hypothesis*: When long-term investors relieve short-term pressure, but do not monitor managers because they hold small ownership stakes, managers overinvest. Excessive spending is mitigated by long-term blockholders who monitor managers.

3. Data

3.1. Corporate Social Responsibility

The CSR ratings come from the Kinder, Lydenberg, Domini, & Co. (KLD) Database, now known as the MCSI ESG Database. KLD provides annual ratings for all firms in the S&P 500 index since 1991. It also covers firms in the Russell 1000 index since 2001 and firms in the Russell 2000 index since 2003. KLD analysts assess each identified firm according to eight CSR dimensions: community, diversity, employment, environment, product, human rights, corporate governance, and controversial businesses. Within each dimension, a firm is rated on several different binary criteria.[5]

In constructing CSR firm scores, I use all available KLD ratings that focus on environmental and social criteria (the first six dimensions). Following literature, I don't include corporate governance and controversial business ratings. I obtain a net KLD score for every firm by counting its strengths and deducting its concerns. In addition, I create a strengths-only and a concerns-only firm score. This procedure gives me a set of annual firm scores for the years 1991 to 2013 (*totscore_ng*, *totstr_ng*, *totcon_ng*). However, these firm scores suffer from the problem that KLD doesn't provide all individual ratings through the entire time period. Therefore, I create another set of KLD firm scores consisting only of those ratings that continuously existed from 1991 to 2009 (*totscore_perm*, *totstr_perm*, *totcon_perm*). The second set ends in 2009 as since then, KLD substantially changed its rating methodology.

[5]For example, in 2006, Caterpillar had one strength and two concerns in the environmental dimension. It was assigned with a strength because it had taken measurements to reduce its impact on climate change and air pollution. However, the firm also had two concerns because of regulatory problems and of manufacturing products that have a negative effect on climate change.

3.2. Institutional Investors

I obtain institutional investors holding data from the Thomson Financial CDA/Spectrum database of 13f filings. Institutional investors are required to file their holdings to the SEC on a quarterly basis when they have more than 100 million dollars under management. I use this database to calculate several institutional ownership variables and investor horizon proxies.

Although investor horizon is not directly observable, it can be approximated by investigating the frequency of investors' trades. My main proxies for investor horizon, stock duration and investor duration, are inspired by Cremers and Pareek (2015) who calculate a holding duration measure by determining how long a stock has been held continuously in an investor's portfolio. For every stock i that is held by an institutional investor j at time $T-1$, I calculate the stock's specific duration as

$$\text{Duration}_{i,j,T-1} = d_{i,j,T-1} = \sum_{t=T-W}^{T-1} \frac{(T-t-1)\alpha_{i,j,t}}{H_{i,j}+B_{i,j}} + \frac{(W-1)H_{i,j}}{H_{i,j}+B_{i,j}} \tag{1}$$

where t and T are in quarters, $B_{i,j}$ is the total percentage of outstanding shares of stock i bought by investor j between $t = T-W$ and $t = T-1$, $H_{i,j}$ is the percentage of outstanding shares of firm i held by investor j at time $t = T-W$, and $\alpha_{i,j,t}$ is the positive (or negative) percentage of outstanding shares of firm i bought (or sold) by investor j between time $t-1$ and t. Following Cremers and Pareek (2015), I compute the duration over 20 quarters ($W = 20$). In a second step, I construct the firm-level stock duration as the weighted average durations of the firm's investors. Formally, I estimate $\sum_{j\in\mathcal{S}} w_{i,j,t} d_{i,j,t}$ where $\mathcal{S}$ is the set of shareholders of firm i, $w_{i,j,t}$ is the weight of investor j in the firm's total percentage of institutional ownership at time t, and $d_{i,j,t}$ is the duration of stock i in the portfolio of investor j at time t.

The stock duration measure indicates the number of quarters that a stock has been held on average by its investors, but it gives little information about the average investment horizon of the firm's investors. Therefore, I also construct investor duration, another investor horizon proxy, in two steps. I first calculate a portfolio duration for every investor j by weighted averaging the duration of the stocks currently held by the investor. For example, if an investor holds 50% of his money in one stock for 1 year and 50% of his money in another stock for 2

years, his portfolio duration would be 1.5 years. Then, for every firm, I create the investor duration as the weighted average portfolio durations of the firm's investors.

As stock duration and investor duration are fairly new measures, I also compute an investor horizon proxy called investor turnover, which indicates how frequent the firm's investors have changed their holdings in the past. A low investor turnover thus shows that the firm is held by long-term investors. Following Gaspar, Massa, and Matos (2005), the measure is constructed in three steps. First, for every investor j and quarter t, I calculate the churn ratio indicating the change of the investor's portfolio between two quarters as

$$\text{Churn Ratio}_{j,t} = \frac{\sum_{i \in \mathcal{Q}} |N_{i,j,t} P_{i,t} - N_{i,j,t-1} P_{i,t-1} - N_{i,j,t-1}(P_{i,t} - P_{i,t-1})|}{\sum_{i \in \mathcal{Q}} \frac{1}{2}(N_{i,j,t} P_{i,t} + N_{i,j,t-1} P_{i,t-1})} \tag{2}$$

where $\mathcal{Q}$ denotes the set of stocks held by investor j, $P_{i,t}$ is the price of stock i at quarter t, and $N_{i,j,t}$ is the number of stock i held by investor j at quarter t. Then, I average the last ten churn ratios of an investor to calculate his portfolio churn ratio. Finally, for every firm, I construct investor turnover as the weighted average of the investors' portfolio churn ratios.

3.3. Other Data Sources

I use different databases to construct firm-level variables. Firm accounting values are obtained from the Compustat Fundamentals Annual Database. Share prices and outstanding shares come from the CRSP US Stock Database. Analysts' earnings estimates are from the IBES database. Data on insider ownership comes from Compustat Execucomp. The names of socially responsible (SRI) mutual funds come from multiple sources.[6] Finally, mutual fund holding data is taken from the Thomson Financial CDA/Spectrum database of S12 filings.

3.4. Descriptive Statistics

The full sample consists of social scores, investor horizon proxies, institutional ownership variables, and several firm characteristics. Social scores are from 1991 to 2013. All other

[6] SRI funds are mutual funds that explicitly incorporate ESG factors into their stock selection process. I use the following sources to identify these funds: US SIF Reports, Morningstar ESG Fund Ratings, Bloomberg ESG Fund Ratings, Socialfunds.com, and the SRI fund list of Nofsinger and Varma (2014).

variables are from 1990 to 2012 because they are lagged in the regressions. Observations are on the firm-year level. I winsorize all variables at the 1% level and at the 99% level. The final dataset contains 39,236 firm-year observations for 5,381 unique firms. Table 1 shows descriptive statistics for the variables used in this study and Appendix A explains their construction.

Table 1 about here.

4. Results

4.1. Investor Horizon and Institutional Ownership

One major implication of my predictions is that investor horizon has a positive effect on CSR. To test this, I estimate the following equation by a pooled OLS regression:

$$\text{KLD Score}_{i,t+1} = \beta_1 \text{Inv Horizon}_{i,t} + \beta_2 \text{Inst Own}_{i,t} + \gamma X_{i,t} + \eta_j + \theta_{t+1} + \epsilon_{i,t+1} \qquad (3)$$

where t is in years, $X_{i,t}$ are firm-level controls of firm i at time t, η_j are three-digit SIC industry dummies, θ_t are year dummies, and $\epsilon_{i,t}$ is the error term. To allow for enough time for CSR changes after an ownership change, I measure institutional ownership and investor horizon at the end of year t and KLD firm scores at year $t+1$. In each regression, I control for firm characteristics that may affect the firm's CSR policy, such as firm size, profitability, financial slack, leverage, and firm age. I also control for ownership of socially responsible mutual funds because these funds are known to incorporate ESG criteria into their stock selection process. Further, I add industry dummies to control for highly correlated KLD scores across industries and time dummies to control for time trends and rating methodology changes.

Table 2 about here.

In the first three columns of Table 2, I present the results for regressions of the net KLD score (*totscore_ng*) on investor horizon proxies. The estimates show that a longer investor horizon (higher duration or lower turnover) is significantly positively associated with the net KLD score of the firm. For example, in column 2, the coefficient of investor duration is 0.097 and is significant at the 1% level, with a t-statistic of 5.4. It is also economically significant: If

investor duration increases by one standard deviation (1.13 quarter), then the net KLD score increases by 0.110, about 5% of its sample standard deviation. The positive effect of investor horizon on the net KLD score is the result of increasing KLD strengths (*totstr_ng*) and of decreasing KLD concerns (*totcon_ng*), as indicated by columns 4 to 9 of Table 2.

In Table IA1 of the Internet Appendix, I further disentangle the effects of investor horizon on different social attributes. For each KLD dimension, I calculate a total dimension score by adding KLD strengths and deducting KLD concerns, further described in Appendix A. The results show that investor horizon is significantly positively correlated with community, diversity, employment, and environmental scores.

A positive correlation between investor horizon and CSR indicates that long-term investors relieve short-term pressure from managers and that managers in turn increase spending in long-term CSR investments. One explanation for this finding would be that short-term investors induce myopic investment decisions. But, as argued in the theoretical part of this paper, it may also be that long-term investors facilitate excessive investments. This finding is therefore consistent with the managerial myopia hypothesis as well as with the empire building hypothesis.

4.2. Disaggregating Institutional Ownership

To gain a better understanding of the heterogeneity among institutional investors, the total institutional ownership variable is split into three variables: short-term (*ioq1*), medium-term (*ioq2*), and long-term (*ioq3*) ownership. For each year-end, I sort investors into terciles according to their portfolio durations and to their negative portfolio churn ratios. I then calculate short-term ownership for each firm by dividing the number of stocks held by short-term investors by the firm's outstanding shares. Medium- and long-term ownership are calculated similarly.

I first examine which institutional investors are short-, medium-, and long-term investors by creating a contingency table between the type of an investor and its horizon. The results, presented in Table IA2 of the Internet Appendix, suggest that bank trusts, corporate pension funds, insurance companies, and public pension funds are usually long-term oriented, whereas investment advisors and investment firms are split evenly between the three groups.[7]

[7]Brian J. Bushee gratefully provides the institutional investor type data on his homepage: `http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html`.

Table 3 about here.

Then, I regress the KLD scores on the three newly created ownership variables, using a similar regression model as in equation 3. Table 3 shows the results for the net KLD score, the strengths-only KLD score, and the concerns-only KLD score.[8] As seen in column 1, short-term ownership is significantly negatively correlated with the net KLD score. With a coefficient of -1.484 and a t-statistic of -6.6, this correlation is statistically and economically significant. The coefficient on medium-term ownership is much lower, with a value of -0.231 and a t-statistic of -1.6. Moreover, I find a significant positive correlation between long-term ownership and the net KLD score, with a coefficient of 0.337 and a t-statistic of 2.3. Columns 3 and 5 show that long-term investors have a slightly positive effect on CSR because their negative effect on KLD concerns are a bit stronger than their negative effect on KLD strengths.

Taken together, these results indicate that firms score higher on CSR when they are held by long-term investors (and not by short-term investors), supporting the managerial myopia hypothesis. However, from these findings one can't conclude that long-term investors encourage managers to make better long-term investment decisions because managers may also overinvest in CSR investments. Given that only blockholders monitor managers to reduce agency problems (Shleifer and Vishny (1986)), it's important to distinguish between blockholders and non-blockholders. Thus, I replace long-term ownership with long-term blockholder ownership (*ioq3_block*) and long-term non-blockholder ownership (*ioq3_small*).[9] If managers never overinvest in CSR investments, the coefficients on both variables should be similar.

However, Table 3 reveals in column 2 that the two coefficients are very different: Ownership of long-term non-blockholders is strongly positively correlated with the net KLD score (with a value of 2.115 and a t-statistic of 7.8), whereas ownership of long-term blockholders is negatively associated with the net KLD score (with a value of -0.571 and a t-statistic of -3.3). Economically, a one standard deviation increase in long-term non-blockholder ownership is associated with a 0.199 *increase* in the net KLD score (about 9% of its sample standard deviation), whereas a one standard deviation increase in long-term blockholder ownership comes

[8] Table 3 shows the results for investors classified according to their portfolio durations. I find similar results when I use portfolio churn ratios instead, as presented in Table IA3 of the Internet Appendix.

[9] A blockholder is defined as an investor holding at least 5% of the firm's outstanding shares.

with a 0.060 *decrease*. Columns 4 and 6 show that blockholders reduce the net KLD score because they have a negative effect on KLD strengths, which is stronger than their negative effect on KLD concerns. Why do managers heavily invest in CSR only when long-term investors are not blockholders? A likely explanation is that managers overinvest in CSR when they are not monitored by shareholders. Given that it doesn't pay for non-blockholders to monitor managers (Shleifer and Vishny (1986)), these findings support the empire building hypothesis.

In Table IA4 of the Internet Appendix, I estimate the effect of institutional investors on each KLD dimension separately. I find that short-term ownership is significantly negatively correlated with community, diversity, employment, and environment scores. Moreover, long-term investors holding small ownership stakes are significantly positively associated with each KLD dimension, whereas long-term blockholders are significantly negatively correlated with community, diversity, employment, and environment scores.

4.3. Under- and Overinvestments

In this section, I directly test whether institutional investors affect the probabilities that managers under- or overinvest in CSR. Following Biddle, Hilary, and Verdi (2009), I identify firms that under- or overinvest by sorting them into quartiles. Specifically, I first regress the net KLD score on the logarithm of total book assets and on book-to-market ratio, for each two-digit SIC industry and year group with a minimum of 15 observations. Then, I sort firm-year observations yearly into quartiles according to the firm's KLD residual estimated in the industry-year cross-sectional regressions. The bottom quartile is defined as the underinvesting group, the top quartile is defined as the overinvesting group, and the two middle quartiles form the reference group.

Table 4 about here.

Table 4 presents the results from a multinomial logit model that estimates the probabilities that a firm belongs to the under- or overinvestment group. Columns A1 and B1 show the log odds of underinvesting versus normal investing. The results indicate that short-term investors significantly increase the probability that a firm underinvests in CSR, consistent with the

managerial myopia hypothesis. Columns A2 and B2 investigate which variables affect the likelihood of overinvesting versus normal investing. The log odds reveal that long-term investors who hold small ownership stakes make it significantly more likely that a manager overinvests in CSR, providing evidence for the empire building hypothesis.

The estimates presented in Table 4 further reveal that long-term blockholders significantly reduce the likelihoods of both underinvestments and overinvestments. Among all groups of institutional investors, only long-term blockholders ensure that managers neither under- nor overinvest in long-term CSR investments. This finding is consistent with the argument that long-term blockholders reduce agency problems by monitoring.

5. Robustness

This section provides robustness for my baseline results. The first part addresses endogeneity concerns and the second part investigates alternative proxies for CSR.

5.1. Endogeneity

Endogeneity is an important concern because the relationship between institutional investors and CSR could be spurious due to an unknown confounding variable. In addition, even if we can assume causality, we don't know the direction of the causality. A positive correlation between long-term investors and CSR investments could imply that long-term investors encourage firms to become more socially responsible or that socially responsible firms attract long-term investors. Given that my results hinge on a causal effect of investor horizon on long-term corporate investment, I now provide a battery of robustness tests including firm fixed effects, first-difference regressions in both directions, an instrumental variable approach, and a difference-in-difference analysis.

5.1.1. Basic Robustness Checks

I begin with three basic robustness checks. First, I rerun each regression using time comparable KLD scores, which consist of only those KLD ratings that continuously existed from 1991 to 2009. Second, I test whether excluding financial institutions and regulated industries impacts

the results. Third, I create industry fixed effects based on different industry classifications, namely, two-digit SIC codes, three-digit SIC codes, and Fama-French 48-Industry codes. My main findings are robust to all three tests.

Moreover, I ensure that my results are robust against several other firm controls: stock liquidity, stock returns, asset growth, cash flows, capital expenditures, property, plant, and equipment, analyst coverage, and analyst error. For example, stock liquidity may have a negative effect on CSR because high stock liquidity impedes long-term corporate investments, according to Fang, Tian, and Tice (2014). Although some of these additional variables do significantly correlate with KLD scores, my main findings don't change when these variables are entered into the model, as presented in Tables IA5 and IA6 of the Internet Appendix.

5.1.2. Firm Fixed Effects and First-Difference Regressions

A major concern in my study is that long-term investors are socially responsible investors who invest in firms with high CSR scores. While I control for ownership of socially responsible mutual funds in my study, it's not possible to identify socially responsible investors other than mutual funds.[10] To rule out reverse causality, I follow Aggarwal et al. (2011) and conduct first-difference regressions in both directions, presenting the results in Table 5.

Table 5 about here.

In Panel A of Table 5, I regress changes in KLD scores on lagged changes in investor horizon and institutional ownership. The dependent variables in these regressions are calculated as the differences between the next and the current year's KLD scores. To make KLD scores comparable over time, I restrict my sample to KLD ratings that were completely available between 1991 and 2009. The independent variables are also measured in changes and are calculated as the differences between the firm-year observations of year t and $t-1$. Firm controls and year dummies are included in every regression. The results, presented in Panel A, clearly indicate that the coefficients on the three investor horizon proxies are unsurprisingly smaller in size (compared to the results in Table 2), but stay significant in seven of the nine

[10] I can identify socially responsible mutual funds because every fund must disclose whether it selects stocks on ESG criteria. However, for other institutional investors, this information is usually not available.

regressions. Moreover, I find that an increase in institutional ownership results in a significant decrease in the strengths-only KLD score and in the concerns-only KLD score.

In Panel B of Table 5, I regress changes in investor horizon on changes in KLD scores to address reverse causality concerns.[11] If socially responsible firms attract long-term investors, we should find a significant positive correlation between KLD scores and investor horizon. However, Panel B reveals that the coefficients on KLD scores are insignificant in eight of the nine regressions, alleviating concerns that long-term investors are socially responsible. Instead, my results provide evidence that institutional investors have a causal effect on CSR.

Next, I run firm fixed regressions of KLD scores on ownership of short-term investors, medium-term investors, long-term non-blockholders, and long-term blockholders. The estimates are presented in Tables IA7 and IA8 of the Internet Appendix. The results show that when firm fixed effects are included, short-term investors still have a significant negative effect on the net KLD score, especially on KLD strengths. Moreover, the finding that long-term blockholders have a less positive effect on the net KLD score than investors holding small ownership stakes is also robust to firm fixed effects. Long-term blockholders have a less positive effect because they have a significant negative effect on KLD strengths, whereas non-blockholders have an insignificant effect on KLD strengths. Taken together, this analysis confirms that my prior empirical findings are not driven by time-invariant firm characteristics.

5.1.3. Institutional Investors Flows

As firm fixed effects and first-difference regressions are only a starting point in addressing endogeneity, I also use an instrumental variable approach to establish causality. The approach requires an instrumental variable that is correlated with the endogenous explanatory variable but not with the dependent variable. Following Cella, Ellul, and Giannetti (2013), I use clients' flows of institutional investors as an instrument for their investment horizons. This instrument is attractive because a long-term investment strategy strongly depends on a stable client base. An institutional investor can only buy and hold stocks for a long time period if, for example, his

[11] I choose to regress changes in investor horizon (measured at year-end) on changes in KLD scores and not to *lagged* changes in KLD scores because institutional investors usually are very fast in reacting to firm changes. However, my results are similar when I use lagged changes in KLD scores.

clients do not withdraw their money after a short period of bad fund performance. Therefore, clients' flows should be strongly correlated with investor horizon.

For the instrument to be valid, it must be uncorrelated with CSR investments. This holds because clients' flows are measured on the portfolio level, whereas the firms' KLD scores are firm-specific attributes. Put differently, when clients give money to (or withdraw money from) an investment manager, they usually take into account certain portfolio characteristics, such as the investment strategy, the historical performance, or the investment fees, but they don't engage in a detailed analysis of the individual firms that are held in the portfolio. Therefore, while portfolio-level clients' flows affect the investment horizon of an investor, it is very unlikely that these flows are correlated with changes in firm-specific KLD scores.

Unfortunately, the CDA/Spectrum database doesn't provide data on total net assets of institutional investors. However, as institutional investors reveal their holdings every quarter-end, it's possible to approximate total net assets by multiplying prices and shares of all the securities held by an investor. Then, I can calculate clients' flows as the difference between the approximated total net assets of the current and last quarter-ends, assuming that investors only change their portfolios at quarter-ends. To avoid distortions, clients' flows are adjusted for stock performance gains and losses between quarters. Finally, I construct a firm-level variable, the instrumental variable, by calculating the average percentage outflows over the last six quarters for every investor of the firm and weighing it according to the investor's portion in the firm's total percentage of institutional ownership.

Table 6 about here.

Intuitively, I expect that institutional investors who had high clients' outflows in the last six quarters are short-term oriented. Columns 1 and 4 of Table 6 show that clients' outflows are indeed strongly negatively correlated with investor horizon. Moreover, high F-statistics on the excluded instruments indicate that clients' flows are not a weak instrument. The results of the second stage are presented for the main net KLD score (*totscore_ng*) in columns 2 and 5 and for the alternative net KLD score (*totscore_perm*) in columns 3 and 6. Using only the exogenous variation in investor horizon that is attributed to clients' flows, I find that investor

horizon is significantly positively associated with the net KLD score. For example, in column 2 and 3, the coefficients on the instrumented variable range between 0.091 and 0.122 and are significant at the 5% and at the 1% level. These results provide strong evidence that investor horizon has a causal effect on long-term CSR investments.

5.1.4. S&P 500 Index Membership

An additional way of establishing causality between investor horizon and CSR is to rely on a quasi-natural experiment. In this section, I study membership changes in the S&P 500 index because they provide an exogenous shock to institutional ownership, according to Aghion, van Reenen, and Zingales (2013). The authors give three arguments why index members have a higher long-term ownership.[12] First, non-index funds are often benchmarked against the S&P 500 and thus have an incentive to hold index stocks. Second, many index funds track the S&P 500 and mechanically buy stocks of every firm that is added to the index. Third, fiduciary laws, e. g. the Employee Retirement Income Security Act, often imply broad indexing.

Membership changes in the S&P 500 are only valid exogenous events when they are not correlated with CSR investments other than through affecting institutional ownership. This condition likely holds because the S&P 500 is designed to reflect the large-cap sector of the US equity market. A firm is only considered for index addition if its market capitalization exceeds a certain threshold—which is reviewed from time to time—in the short- and medium-term. But a firm is never included into the index because of its social responsibility or its expected performance. In fact, Standard and Poor's explicitly states that the decision to include a stock into the S&P 500 is not a recommendation to buy, sell, or hold that stock.[13]

To identify the average treatment effect, I rely on a difference-in-difference approach that allows me to compare the change in outcomes in the treatment group to the change in outcomes in the control group. This approach has the advantage that it's robust to time-invariant firm characteristics. I choose not to use a basic difference-in-difference approach because firms

[12] I expect that index members have a higher ownership of *long-term* investors, given that firms usually stay in the index for several years. In fact, out of 590 total additions since 1990, 323 stocks are still in the S&P 500 today and the remaining 247 stocks stayed in the index for 7 years on average.

[13] See the S&P U.S. Indices Methodology, found at the homepage of Standard & Poor's: `http://eu.spindices.com/documents/methodologies/methodology-sp-us-indices.pdf`.

are included into (and excluded from) the S&P 500 in different years. Instead, following Galiani, Gertler, and Schargrodsky (2005), I use a two-way fixed-effect linear regression model to estimate the difference-in-difference model. This approach takes into account that firms stay in the index for different time periods. Formally, I estimate

$$\text{KLD Score}_{i,t+1} = \beta D_{i,t} + \gamma X_{i,t} + \lambda_i + \theta_{t+1} + \epsilon_{i,t+1} \tag{4}$$

where $D_{i,t}$ is one if firm i was a member of the S&P 500 index in year t and zero otherwise, $X_{i,t}$ is a vector of control variables, λ_i are firm fixed effects, θ_t are year fixed effects, and $\epsilon_{i,t}$ is the time-varying error term. I am interested in $D_{i,t}$, which gives me the effect of an inclusion into the S&P 500 index on KLD scores. The KLD scores used in this approach consist only of those KLD ratings that continuously existed from 1991 to 2009.

While additions to the S&P 500 are exogenous events, they are not completely random. As Aghion, van Reenen, and Zingales (2013) point out, a firm is added to the index only if it has experienced a large growth in terms of market capitalization. Every firm that is added to the S&P 500 index thus has had high stock returns in the years before the inclusion. To account for this, I control for three additional variables in this analysis: the average stock returns over the last 12 months, the change of total book assets, and stock liquidity. I use lagged versions of these variables to control for firm changes before index inclusion.

Table 7 about here.

Table 7 presents the results. Columns 1 to 4 show that an index inclusion reduces short- and medium-term ownership by 5.0%, but increases ownership of long-term non-blockholders by 3.3%. Ownership by long-term blockholders is slightly reduced by 0.6%. This change in the ownership structure results in a significant increase in KLD strengths, as indicated by the positive coefficient on the index dummy of 0.245 (with a t-statistic of 4.2) in column 6. As a result, the net KLD score increases by 0.170, as seen in column 5. With a t-statistic of 1.8, the coefficient on the net KLD score is just statistically significant at the 10% level. These results indicate that when ownership shifts exogenously from short-term to long-term investors following an addition to the S&P 500 index, long-term CSR investments are significantly

increased. This confirms a causal relationship between investor horizon and CSR.

5.2. Alternative CSR Measures

5.2.1. Shareholder Proposals on CSR Issues

How do shareholders influence firms on CSR? One of the few ways that we can observe this are through shareholder proposals on CSR issues. In this section, I examine these proposals to find out which institutional investors are collaborators of CSR engagements.[14]

I first investigate which firms are targeted by such engagements. Following Dimson, Karakas, and Li (2015) and Brav et al. (2008), I compare the characteristics of the targeted firms one year before the engagement with a matched sample of non-targeted firms. Every targeted firm is matched with firms in the Compustat universe from the same year, the same industry (3-digit SIC), and the same 10x10 market cap and market-to-book sorted portfolio. If the targeted firm can't be matched, I rerun the matching with 2-digit SIC industry and 5x5 market cap and market-to-book sorted portfolios. After matching firms, I regress a dummy that indicates whether a firm was targeted (*sri_proposal*) on my baseline variables and on year dummies.

Table 8 about here.

Table 8 presents the results of the probit regressions in Panel A.[15] Column 1 reveals that short-term investors have the lowest positive coefficient, while long-term investors have nearly a twice as large positive coefficient, indicating that firms have a higher probability to be engaged on CSR issues when they are held by long-term investors. In column 2, I divide long-term ownership into ownership of long-term blockholders and long-term non-blockholders, finding that non-blockholders are associated with a significantly higher probability of CSR engagements than blockholders (with a coefficient of 0.968 compared to 0.252).

Next, I study the voting results of proposals that came to vote. Using a Heckman-style selection model, I regress the percentage of votes in favor of a proposal on the same variables

[14]Shareholder proposals are obtained from Institutional Shareholder Services (ISS), formerly known as RiskMetrics. ISS covers firms in the S&P 1,500 index and about 400-500 widely held firms on CSR-related shareholder proposals since 1997. My database contains 5,036 CSR engagements. Of these 5,036 engagements, only 29 (0.58%) proposals were successful, 2,498 (49.60%) failed, and 2,509 (49.82%) didn't come to vote.

[15]Table 8 shows the results for investors classified according to their portfolio durations. I find similar results when I use portfolio churn ratios instead, as presented in Table IA9 of the Internet Appendix.

as in the previous analysis. Again, in Table IA10 of the Internet Appendix, I find that among long-term investors, only non-blockholders have a significant positive effect on voting results, which indicates that they vote in favor of CSR-related proposals. Long-term blockholders, in contrast, have an insignificant negative effect on proposals' voting results.

These results suggest that long-term investors are only collaborators of CSR engagements when they hold small ownership stakes, providing further evidence that non-blockholders have a significantly more positive effect on CSR investments than blockholders.

5.2.2. Dow Jones Sustainability Index Membership

Throughout my study, I use KLD firm scores to measure CSR. Another measure of CSR is whether a firm is a member of the Dow Jones Sustainability Index (DJSI), a well-known index for corporate sustainability. The DJSI uses a best-in-class approach to select the most socially responsible firms from each industry. Firm's sustainability is assessed by RobecoSAM, an investment specialist, along numerous environmental, social, and governance criteria. On average, the DJSI index has consisted of 129 members per year since 2005.[16]

To analyze the relationship between institutional investors and firm membership in the DJSI, I compare the characteristics of index members one year before index inclusion with a matched sample of non-index firms, using the same matching algorithm as in the previous section. To compare matched firms, I regress a DJSI membership dummy ($djsi$) on my baseline variables, current DJSI membership status, and on year dummies.[17]

Table 8 presents the results of the probit regressions in Panel B. Column 1 shows that short-term investors insignificantly decrease the probability that a firm becomes a member of the DJSI in the next year, whereas long-term investors significantly increase the probability of index inclusion in the next year. Column 2 reveals that the positive effect of long-term investors on DJSI inclusion is driven primarily by long-term non-blockholders who have a significantly higher coefficient than blockholders. This result indicates that blockholders have a less positive effect on CSR than non-blockholders, consistent with my previous findings.

[16] See the DJSI methodology description of Dow Jones for further information: `http://www.djindexes.com/mdsidx/downloads/meth_info/methodology-dj-sustainability-indices.pdf`.

[17] I include current DJSI membership status as a control variable, because Dow Jones favors current index members over non-index members when it chooses which firms are included into the next year's index.

6. Explanations

In this section, I review whether managerial myopia and empire building theory can explain my empirical findings. Major implications of my predictions are assessed using earnings management and insider ownership cross-sectional tests. Moreover, I investigate which institutional investors encourage CSR investments that are in line with shareholder value maximization.

6.1. Short-Term Investors Induce Managerial Myopia

The managerial myopia hypothesis argues that short-term investors negatively impact long-term corporate investment by exerting short-term pressure on managers. This section tests the cross-sectional implication that pressure from short-term investors should result in less long-term investments when managers have a stronger focus on short-term profits.

Literature shows that earnings management is an appropriate proxy to identify firms that adopt a short-term focus. Managers manage earnings when their compensation is more closely tied to stock value and option holdings (Burns and Kedia (2006); Bergstresser and Philippon (2006)) or when managers serve in the short-term interests of current, over future, shareholders (Teoh, Welch, and Wong (1998); Bolton, Scheinkman, and Xiong (2006)). Bhojraj et al. (2009) confirm that managers profit from a temporary stock price increase when they manage accruals or cut discretionary spending to exceed analyst forecasts.[18]

Accruals are the difference between earnings and cash flows. As accruals are accounting adjustments, they are subject to the managers' judgments and thus are vulnerable to manipulation. However, not all accruals are a sign of earnings management. Every firm has a normal level of accruals that depends on its business model. To decompose accruals into discretionary and nondiscretionary accruals, I use a modified version of the Jones model (Jones (1991); Dechow, Sloan, and Sweeney (1995)). For robustness, I also use the performance-matched modified Jones model (Kothari, Leone, and Wasley (2005)). Both models are explained in Appendix B.

Table 9 about here.

To test whether short-term investors have a more negative effect on CSR when earnings are

[18]See Dechow, Ge, and Schrand (2010) for an extensive review of the earnings management literature.

managed, I divide my sample yearly into two groups, using the absolute level of discretionary accruals as the sorting criterion.[19] If a firm has discretionary accruals lower than the median, it is classified as a low earnings management firm ("EM Low"). Otherwise, the firm is a high earnings management firm ("EM High"). The results, presented in Panel A of Table 9, show that the negative effect of short-term investors on CSR is significantly stronger when managers manage earnings.[20] For example, in columns 3 and 4, a one standard deviation increase in short-term ownership is associated with a 0.151 decrease in the net KLD score of firms in the high EM subsample, compared to a 0.047 decrease in the low EM subsample. Robust t-tests confirm that the coefficients on short-term ownership are significantly different at the 5% level in each cross-sectional test. Moreover, columns 5 to 8 show that investor horizon has a more positive effect on CSR when managers manage earnings. These results confirm that short-term investors negatively impact CSR, in particular when managers adopt a short-term focus and manage earnings. This is consistent with the managerial myopia hypothesis.

6.2. Long-Term Blockholders Mitigate Empire Building

The empire building hypothesis implies that managers overinvest when they are free from short-term pressure and are not monitored by blockholders. To investigate this hypothesis, I again use earnings management to classify firms into low and high earnings management firms. I argue that overinvestments should occur when managers do *not* manage earnings to meet short-term targets. This is intuitively reasonable, given that managers build empires only when they have enough financial slack and don't aim for difficult short-term targets. As monitoring by blockholders is more important when chances are higher that managers overinvest, I expect that long-term blockholders will have a more negative effect on CSR when the firm belongs to the low earnings management subsample.

Panel B of Table 9 presents the results of this cross-sectional analysis. I begin with regressing the net KLD score on ownership of long-term blockholders. Columns 1 and 2 show that

[19] Following several papers (Bergstresser and Philippon (2006); Yu (2008); Hazarika, Karpoff, and Nahata (2012)), I use the absolute value of discretionary accruals because short-term oriented managers often manipulate earnings downwards in good years and upwards in bad years.

[20] Table 9 presents the results for the modified Jones model, whereas Table IA11 of the Internet Appendix presents the results for the performance-matched modified Jones model.

long-term blockholders have a significant negative effect on the net KLD score in the low EM subsample (with a coefficient of -0.767 and a t-statistic of -2.7), but not in the high EM subsample (with a coefficient of 0.005). A robust t-test in a fully interacted regression model shows that the two coefficients are significantly different at the 5% level. In columns 3 and 4, I find quantitatively similar results when I use a different specification of long-term blockholder ownership. For robustness, I study ownership of the institutional investor with the largest ownership stake and of dedicated investors.[21] Again, the results in columns 5 to 8 reveal that these investors have a more negative effect on the net KLD score in the low earnings management subsample than in the high one. Given that overinvestments are more likely when managers are free from short-term pressure and don't manage earnings, these results strongly support the empire building hypothesis.

Another implication of the empire building hypothesis is that managers excessively spend on long-term corporate investment when they don't have to take the shareholder value loss associated with overinvestments. Jensen and Meckling (1976) demonstrate that a manager gains more utility from non-pecuniary benefits, such as having a larger empire, when the manager has a lower ownership stake in the firm. A manager who is also the firm's owner wouldn't overinvest in CSR because he would have to bear the associated loss in shareholder value. If, however, the manager holds no ownership stake in the firm, he may spend too much in CSR to reap the private benefits of high CSR activities without paying the costs. To avoid overinvestments, shareholders must therefore specifically monitor managers who own low ownership stakes in the firm. Consequently, long-term blockholders should have a more negative effect on the net KLD score in firms in which insider ownership is lower.

Table 10 about here.

In Table 10, I test this implication by dividing my sample into low and high insider ownership subsamples, using the annual median of the firms' insider ownership levels as the sorting criterion. I then regress the net KLD score on different specifications of monitoring blockholders

[21] Aghion, van Reenen, and Zingales (2013) argue that the institutional investor who holds the largest ownership stake has the highest incentive of all shareholders to monitor managers, and Bushee (1998) puts forward that dedicated investors monitor managers because they hold few large ownership positions for a long time period.

(long-term blockholder ownership, ownership of the largest investor, and ownership of dedicated investors). The results reveal that blockholders have a significantly more negative effect on the net KLD score when insider ownership is lower. For example, in column 1 and 2, long-term blockholder ownership has a coefficient of -0.801 (with a t-statistic of -2.0) in the low insider ownership subsample compared to a coefficient of 0.514 (with a t-statistic of 1.8) in the high insider ownership subsample. Robust t-tests confirm that the coefficients on blockholders are significantly different in each cross-sectional test. These results indicate that blockholders mitigate excessive CSR investments in firms in which managers hold only low ownership stakes, which provides further evidence for the empire building hypothesis.

6.3. Long-Term Blockholders Maximize Shareholder Value

Throughout this paper, I argue that long-term blockholders monitor managers to ensure long-term shareholder value creation. Long-term blockholders should therefore have a highly positive effect on those CSR investments that are strongly value-relevant. I test this implication by studying costly ESG incidents collected by RepRisk.

RepRisk identifies an ESG incident whenever a firm is accused of a certain ESG issue.[22] To find these incidents, RepRisk screens the news media, stakeholder sources, and third-party sources such as NGOs. Whenever an ESG-related incident is found, RepRisk assigns a positive value between 1 and 52 in the corresponding firm-month observation, where a higher number indicates a higher reputational risk for the firm. The exact scoring method is proprietary, however, according to available documentation, RepRisk analysts take the reach, severity, novelty, and intensity of an incident into account when rating the incident. In every month in which a firm has no negative ESG news, RepRisk assigns the value of zero. My dataset consists of 2,223 different public US companies that are rated on a monthly basis from 2007 to 2015, resulting in 228,969 total firm-month observations. A total of 15,782 (6.9%) firm-month observations have a score greater than zero, indicating that these observations are associated with an ESG incident.

[22] RepRisk covers firms on 28 ESG issues at the moment. These issues are defined in accordance with international standards. RepRisk investigates, for example, whether firms pollute the environment, use child or forced labor, participate in fraud or tax evasion, or have product safety problems.

This analysis is only possible because RepRisk's ESG incidents are news-based events, which allows me to precisely estimate the shareholder value impact of an ESG issue. KLD concerns can't be used because they are annual social ratings which are published once a year. Another advantage of RepRisk incidents is that RepRisk distinguishes major from minor ESG issues, whereas KLD gives each concern the same weight.

In Table IA12 of the Internet Appendix, I conduct an event study to examine whether ESG incidents from RepRisk destroy shareholder value. I find that these incidents are indeed value-relevant. A RepRisk event is associated with a significant negative cumulative abnormal return (CAR). For example, an event with a minimum of 10 points has a significant negative CAR (estimated with the market model over a centered window of 20 trading days) of 0.440%. This amounts to a shareholder value loss of approximately 33.9 million dollars per event, as a firm in the RepRisk data sample has an average market cap of 7,715 million dollars. If the event has a minimum of 30 points (a more severe ESG incident), then the shareholder value loss is approximately 163.2 million dollars per event. These results suggest that ESG-related incidents have strong negative effects on the shareholder value.[23]

Table 11 about here.

To examine the relationship between institutional investors and ESG reputational risks, I calculate an annual firm score by summing the event points of the firm's ESG incidents of a given year.[24] The annual firm score is higher when the firm bears higher ESG reputational risks. I then regress the annual firm score on institutional ownership variables and present the results in Panel A and B of Table 11. Column 1 shows the raw annual score, column 2 presents the log score, and column 3 gives the logarithm of the annual sum of the dollar shareholder value losses associated with ESG incidents.[25]

All models show a similar picture: Short-term investors have a mostly significant and positive effect on ESG incidents, indicating that managerial myopia destroys shareholder value.

[23] My event study is robust to varying event windows, different models used to estimate abnormal returns, and to different specifications of RepRisk events. Further, in unreported robustness checks, I remove firms with a large history of ESG incidents because it's difficult to estimate unbiased CAR of these firms' events.

[24] Table IA13 of the Internet Appendix provides descriptive statistics for the RepRisk sample.

[25] I estimate the dollar shareholder value loss per event by multiplying the CAR of the event with the firm's market cap measured 50 trading days prior to the event.

Moreover, long-term blockholders have a highly negative effect on ESG reputational risks. For example, in column 3 of Panel A, the coefficient of long-term blockholders is -1.143 (with a t-statistic of -6.1). This implies that a one standard deviation increase in blockholder ownership (11%) is associated with a 12% annual reduction in the shareholder value loss (about 29 million dollars per year) arising from RepRisk incidents. Long-term non-blockholders, in contrast, don't have such strong negative effects on ESG reputational risks. Wald tests confirm that the coefficients on non-blockholder and blockholder ownership are significantly different in five of the six models. These results provide evidence that especially well-informed blockholders encourage managers to focus on value-relevant CSR investments and ensure that managers neither under- nor overinvest in CSR.

7. Discussion

This paper studies corporate social responsibility as an example of a long-term corporate investment. Naturally, this raises the question whether my empirical findings on CSR are applicable to other types of long-term corporate investments such as innovation.

Investments in innovation are similar to CSR because they pay off only in the long-term. As such, myopic managers may be tempted to cut R&D expenditures when they are pressured by short-term investors. Bushee (1998) and Cremers, Pareek, and Sautner (2016) empirically confirm that short-term investors have a negative effect on R&D expenditures. Together with my findings on CSR, these results provide evidence that short-term investors induce managerial myopia and negatively affect long-term corporate investment.

Absent from any short-term pressure, do unmonitored managers overinvest in innovation as they do with CSR? The empirical evidence on this question is scant, arguably because it's very difficult for the researcher to distinguish necessary R&D projects from unnecessary ones. In contrast to the literature on CSR, the literature on innovation gives little evidence that firms have an optimal level of R&D investments. Therefore, I conclude that while it may be too far-fetched to speak of overinvestments in the case of innovation, it's conceivable that poorly monitored managers promote undisciplined investment in R&D projects when they have much financial slack (Jensen (1986); Jensen (1993); Nohria and Gulati (1996)).

8. Conclusion

In this paper, I examine an important aspect of institutional investors, namely, their effect on long-term corporate investment. If information asymmetries exist between managers and shareholders, managers may deviate from the optimal investment level and either under- or overinvest in long-term corporate investments. Using prominent strands of literature, I make two predictions. First, short-term investors put pressure on managers and induce managerial myopia. Second, if the firm is held by long-term investors who don't monitor managers, then managers overinvest and build empires.

I examine these predictions by applying them to long-term investments in corporate social responsibility (CSR). I find strong evidence for both predictions. Short-term investors have a highly significant negative effect on CSR, in particular when managers manage earnings to meet short-term targets. When managers cater to short-term investors and reduce CSR, they put the firm at risk of value-destroying ESG reputational issues. I also find that long-term investors relieve short-term pressure and thereby foster CSR investments. However, the positive effect of long-term investors on CSR is driven entirely by non-blockholders and not by blockholders, providing evidence that managers tend to overinvest when they are not monitored by blockholders. Theory suggests that excessive investments are more likely when managers hold small ownership stakes in the firm and when managers are free from short-term pressure. Consistent with these arguments, I find that long-term blockholders mitigate managerial empire building in particular under these two situations. Taken together, these results show that among long-term investors, only blockholders ensure that managers neither under- nor overinvest in CSR. Finally, I confirm that long-term blockholders encourage managers to concentrate on long-term CSR investments that are strongly linked to shareholder value, such as those that reduce costly ESG reputational risks.

This paper illustrates the complex relationship between institutional investors and long-term corporate investment, highlighting the important role of investor horizon. I contribute that an agency problem—either managerial myopia or empire building—arises when the firm is not held by long-term institutional blockholders who monitor managers.

Appendix A Variable Descriptions

Variable	Description
	Corporate Social Responsibility Variables
totscore_ng, totstr_ng, totcon_ng	CSR firm scores that are constructed from all available community, diversity, employment, environment, human rights, and product KLD binary ratings from 1991 to 2013. The net KLD score (totscore_ng) is the difference between the strengths-only KLD score (totstr_ng) and the concerns-only KLD score (totcon_ng). The strengths/concerns-only scores are formed by summing the firm's CSR strengths/concerns. Source: KLD
totscore_perm, totstr_perm, totcon_perm	CSR firm scores that are similar to the previous firm scores, expect that only KLD binary ratings that continuously existed from 1991 to 2009 were used. The net KLD score (totscore_perm) is the difference between the strengths-only KLD score (totstr_perm) and the concerns-only KLD score (totcon_perm). Source: KLD
com, div, emp, env, hum, pro	The difference between strengths and concerns KLD ratings from 1991 to 2013 calculated separately for each dimension: community relations (com), diversity (div), employment (emp), environment (env), human rights (hum), and product (pro). Source: KLD
sri_proposal	A dummy variable that is one if the firm was engaged on CSR issues in a given year and zero otherwise. Control firms are matched using these rules: a firm of the same year, the same industry (3-digit SIC), and the same 10x10 market cap and market-to-book sorted portfolio. If I don't find any matches, I use these matching criteria: a firm of the same year, the same 2-digit SIC industry, and the same 5x5 market cap and market-to-book sorted portfolio. Source: RiskMetrics
vote_pct	The voting result of a CSR-related shareholder proposal. Source: RiskMetrics
djsi	A dummy variable that is one if the firm was a member of the Dow Jones Sustainability Index in a given year and zero otherwise. Control firms are matched using the same matching algorithm as with the variable sri_proposal. Source: Dow Jones
reprisks	An annual RepRisk firm score calculated by summing the event points of the firm's ESG incidents of a given year. An ESG incident is a negative news series that bears reputational risks for the firm. The score is higher when the firm bears higher ESG-related reputational risks. Source: RepRisk
reprisks_loss	The annual sum of the dollar shareholder value loss resulting from ESG incidents of a given year. The loss per event is calculated in three steps. First, I calculate normal stock returns by employing a Fama/French/Carhart 4-factor model over a window of 250 trading days ending 50 trading days prior to the event. Second, I estimate cumulative abnormal returns (CAR) during a 20 trading day event window. Third, I get the loss per event by multiplying the CAR with the firm's market cap measured 50 trading days prior to the event. Sources: RepRisk and CRSP Daily
	Institutional Investors Variables
io_total	Percentage of outstanding shares held by institutional investors. Source: CDA 13f
io_srifunds	Percentage of outstanding shares held by socially responsible (SRI) funds. Sources: US SIF Reports, Morningstar ESG Fund Ratings, Bloomberg ESG Fund Ratings, Socialfunds.com, the SRI fund list of Nofsinger and Varma (2014), and the CDA S12 database

duration

Stock duration gives the average time in quarters that a stock has been held continuously by its investors. For every stock i that is held by an institutional investor j at time $T-1$, I calculate the stock's specific duration as

$$\text{Duration}_{i,j,T-1} = d_{i,j,T-1} = \sum_{t=T-20}^{T-1} \frac{(T-t-1)\alpha_{i,j,t}}{H_{i,j}+B_{i,j}} + \frac{(20-1)H_{i,j}}{H_{i,j}+B_{i,j}}$$

where t and T are in quarters, $B_{i,j}$ is the total percentage of outstanding shares of stock i bought by investor j between $t=T-20$ and $t=T-1$, $H_{i,j}$ is the percentage of outstanding shares of stock i held by investor j at time $t=T-20$, and $\alpha_{i,j,t}$ is the positive (negative) percentage of outstanding shares of stock i bought (sold) by investor j between time $t-1$ and t. Then, I construct the firm-level stock duration as $\sum_{j\in\mathcal{S}} w_{i,j,t}d_{i,j,t}$ where $\mathcal{S}$ is the set of shareholders of firm i and $w_{i,j,t}$ is the weight of investor j in the firm's total percentage of institutional ownership. Source: CDA 13f

in_duration

Investor duration gives the average investor horizon of a stock in quarters. It's calculated in a similar way as stock duration. First, I calculate the specific duration ($= d_{i,j,t}$) of every stock held by an investor as above. Second, I calculate a portfolio duration for every investor j as $\sum_{i\in\mathcal{P}} m_{i,j,t}d_{i,j,t}$ where $\mathcal{P}$ is the set of stocks held by investor j at time t and $m_{i,j,t}$ is the weight of stock i in the portfolio of investor j at time t. Third, for every firm, I create the firm-level investor duration as the weighted average portfolio durations of the firm's investors. Source: CDA 13f

in_turnover

Investor turnover indicates how frequent the firm's investors have changed their portfolios. It is calculated in three steps. First, for every investor j and quarter t, I calculate the churn ratio of the investor as

$$\text{Churn Ratio}_{j,t} = \frac{\sum_{i\in\mathcal{Q}} |N_{i,j,t}P_{i,t} - N_{i,j,t-1}P_{i,t-1} - N_{i,j,t-1}(P_{i,t}-P_{i,t-1})|}{\sum_{i\in\mathcal{Q}} \frac{1}{2}(N_{i,j,t}P_{i,t} + N_{i,j,t-1}P_{i,t-1})}$$

where $\mathcal{Q}$ denotes the set of stocks held by investor j, $P_{i,t}$ is the price of stock i at quarter t, and $N_{i,j,t}$ is the number of stock i held by investor j at quarter t. Then, I average the last ten churn ratios of an investor to calculate his portfolio churn ratio ($= cr_{j,t}$). Finally, for every firm, I construct investor turnover as $\sum_{j\in\mathcal{S}} w_{i,j,t}cr_{j,t}$ where $\mathcal{S}$ is the set of shareholders of firm i and $w_{i,j,t}$ is the weight of investor j in the firm's total percentage of institutional ownership at time t. Source: CDA 13f

ioq1, ioq2, ioq3

Percentage of outstanding shares held by short-/medium-/long-term institutional investors. A short/medium/long-term investor is an investor in the bottom/middle/top 33rd percentile of the investors' portfolio durations. Source: CDA 13f

ioq3_block, ioq3_small

Percentage of outstanding shares held by long-term blockholders (ioq3_block) and long-term investors with small ownership stakes (ioq3_small). A long-term investor is an investor in the top 33rd percentile of the investors' portfolio durations. A blockholder is an investor holding more than 5% of the firm's outstanding shares. Source: CDA 13f

ioq1_alt, ioq2_alt, ioq3_alt

Percentage of outstanding shares held by short-/medium-/long-term institutional investors. A short/medium/long-term investor is an investor in the top/middle/bottom 33rd percentile of the investors' portfolio churn ratios. Source: CDA 13f

ioq3_block_alt, ioq3_small_alt

Percentage of outstanding shares held by long-term blockholders (ioq3_block_alt) and long-term non-blockholders (ioq3_small_alt). A long-term investor is an investor in the bottom 33rd percentile of the investors' portfolio churn ratios. A blockholder is an investor holding more than 5% of the firm's outstanding shares. Source: CDA 13f

io_top1

Percentage of outstanding shares held by the institutional investor who holds the largest ownership stake in the firm. Source: CDA 13f

io_ded	Percentage of outstanding shares held by dedicated investors. According to the investor classification of Bushee (1998), dedicated investors hold few large stock ownership positions for a long time period. Sources: CDA 13f and Bushee (1998)
inv_outflow	The average percentage clients' outflows of the institutional investors who hold the firm, calculated in two steps. First, the clients' outflows of an institutional investor are averaged over the last six quarters. Second, a firm-level variable is constructed by weighing the average percentage outflows of the firm's investors according to their portion in the firm's total percentage of institutional ownership. Source: CDA 13f

Firm Variables

assets	Absolute value of total book assets in million dollar. Source: Compustat
roa	Ratio of net income over total book assets. Source: Compustat
cash_holding	Ratio of cash balances over total book assets. Source: Compustat
cash_dividends	Ratio of cash dividends over total book assets. Source: Compustat
debt	Ratio of total debts over total book assets. Source: Compustat
book_market	Ratio of equity book value over equity market value. Source: Compustat
age	Age in years since the first appearance in CRSP. Source: CRSP Monthly
liq	Negative value of the Amihud (2002) stock illiquidity measure. Source: CRSP Daily
capex	Ratio of capital expenditures over total book assets. Source: Compustat
ppa	Ratio of net property, plant, and equipment over total book assets. Source: Compustat
stock_ret	Average monthly stock returns over 12 months. Source: CRSP Monthly
growth	Change of total book assets scaled by lagged total book assets. Source: Compustat
cash_flow	Ratio of income before extraordinary items plus depreciation and amortization over total book assets. Source: Compustat
analyst_coverage	Average number of analysts covering the firm. Source: IBES
analyst_error	Analyst estimates' standard deviation divided by the mean estimate. Source: IBES
sp500	A dummy variable that is one if a firm was a member of the S&P 500 index in a given year and zero otherwise. Source: Compustat

Appendix B Earnings Management Models

B.1 The Modified Jones Model

According to the modified version of the Jones model (Jones (1991); Dechow, Sloan, and Sweeney (1995)), discretionary accruals are calculated in three steps. First, I run the following cross-sectional OLS regression for each calendar year and two-digit SIC industry group with a minimum of 15 observations in order to estimate the coefficients α_1, α_2, and α_3:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \alpha_1 \frac{1}{A_{i,t-1}} + \alpha_2 \frac{\Delta REV_{i,t}}{A_{i,t-1}} + \alpha_3 \frac{PPE_{i,t}}{A_{i,t-1}} + \epsilon_{i,t}$$

where $TA_{i,t}$ equals net income minus cash flow from operations of firm i at time t, $\Delta REV_{i,t}$ is the changes in sales revenue, $PPE_{i,t}$ is gross property, plant, and equipment, and $A_{i,t-1}$ are total book assets of time $t-1$. Second, I use the estimated coefficients $\hat{\alpha_1}$, $\hat{\alpha_2}$, and $\hat{\alpha_3}$ to calculate nondiscretionary accruals as

$$NDA_{i,t} = \hat{\alpha_1} \frac{1}{A_{i,t-1}} + \hat{\alpha_2}\left(\frac{\Delta REV_{i,t}}{A_{i,t-1}} - \frac{\Delta AR_{i,t}}{A_{i,t-1}}\right) + \hat{\alpha_3} \frac{PPE_{i,t}}{A_{i,t-1}}$$

where $\Delta AR_{i,t}$ is the change in receivables of firm i at time t. Finally, I use the formula

$$DA_{i,t} = \frac{TA_{i,t}}{A_{i,t-1}} - NDA_{i,t}$$

to calculate discretionary accruals of firm i at time t. As all variables are scaled, the firm's discretionary accruals are indicated as a percentage of the firm's total book assets.

B.2 The Performance-Matched Modified Jones Model

Kothari, Leone, and Wasley (2005) argue that the performance-matched modified Jones model allows more reliable statistical interference than the (standard) modified Jones model, especially in non-random samples. It's calculated in three steps. At first, I calculate discretionary accruals for each firm according to the modified Jones model described above. Then, I match each firm with a firm from the same year and same two-digit SIC industry that has the closest lagged return on assets. Firms with missing data on return on assets are excluded. Finally, I calculate the performance-matched discretionary accruals as the difference between the firm-specific discretionary accruals and the discretionary accruals of the matched firm.

References

Admati, Anat R. and Paul Pfleiderer (2009). "The "wall street walk" and shareholder activism: Exit as a form of voice." *Review of Financial Studies* 22 (7), 2645–2685.

Aggarwal, Reena, Isil Erel, Miguel Ferreira, and Pedro Matos (2011). "Does governance travel around the world? Evidence from institutional investors." *Journal of Financial Economics* 100 (1), 154–181.

Aghion, Philippe, John van Reenen, and Luigi Zingales (2013). "Innovation and institutional ownership." *American Economic Review* 103 (1), 277–304.

Albuquerque, Rui, Art Durnev, and Yrjö Koskinen (2016). "Corporate social responsibility and firm risk: Theory and empirical evidence." Working paper.

Amihud, Yakov (2002). "Illiquidity and stock returns: cross-section and time-series effects." *Journal of Financial Markets* 5 (1), 31–56.

Baumol, William J. (1959). "Business behavior, value and growth." New York.

Bénabou, Roland and Jean Tirole (2010). "Individual and corporate social responsibility." *Economica* 77 (305), 1–19.

Bergstresser, Daniel and Thomas Philippon (2006). "CEO incentives and earnings management." *Journal of Financial Economics* 80 (3), 511–529.

Berle, Adolf A. and Means C. Gardiner (1932). "The modern corporation and private property." New York.

Bertrand, Marianne and Sendhil Mullainathan (2003). "Enjoying the quiet life? Corporate governance and managerial preferences." *Journal of Political Economy* 111 (5), 1043–1075.

Bhojraj, Sanjeev, Paul Hribar, Marc Picconi, and John McInnis (2009). "Making sense of cents: An examination of firms that marginally miss or beat analyst forecasts." *Journal of Finance* 64 (5), 2361–2388.

Biddle, Gary C., Gilles Hilary, and Rodrigo S. Verdi (2009). "How does financial reporting quality relate to investment efficiency?" *Journal of Accounting and Economics* 48 (2-3), 112–131.

Bolton, Patrick, José Scheinkman, and Wei Xiong (2006). "Executive compensation and short-termist behaviour in speculative markets." *Review of Economic Studies* 73 (3), 577–610.

Brav, Alon, Wei Jiang, Frank Partnoy, and Thomas Randall (2008). "Hedge fund activism, corporate governance, and firm performance." *Journal of Finance* 63 (4), 1729–1775.

Brekke, Kjell Arne and Karine Nyborg (2005). "Moral hazard and moral motivation: Corporate social responsibility as labor market screening." Working paper.

Burns, Natasha and Simi Kedia (2006). "The impact of performance-based compensation on misreporting." *Journal of Financial Economics* 79 (1), 35–67.

Bushee, Brian J. (1998). "The influence of institutional investors on myopic R&D investment behavior." *Accounting review* 73 (3), 305–333.

Cella, Cristina, Andrew Ellul, and Mariassunta Giannetti (2013). "Investors' horizons and the amplification of market shocks." *Review of Financial Studies* 26 (7), 1607–1648.

Chava, Sudheer (2014). "Environmental externalities and cost of capital." *Management Science* 60 (9), 2223–2247.

Chen, Guoli, Huasheng Gao, Po-Hsuan Hsu, and Kai Li (2015). "How does transition from private to public ownership influence a firm's exploratory versus exploitative innovation strategy?" Working paper.

Chen, Xia, Jarrad Harford, and Kai Li (2007). "Monitoring: Which institutions matter?" *Journal of Financial Economics* 86 (2), 279–305.

Cheng, Ing-Haw, Harrison Hong, and Kelly Shue (2016). "Do managers do good with other people's money?" Working paper.

Cohn, Jonathan B. and Malcolm I. Wardlaw (2016). "Financing constraints and workplace safety." *Journal of Finance* 71 (5), 2017–2058.

Cremers, K. J. Martijn and Ankur Pareek (2015). "Short-term trading and stock return anomalies: Momentum, reversal, and share issuance." *Review of Finance* 19 (4), 1649–1701.

Cremers, K. J. Martijn, Ankur Pareek, and Zacharias Sautner (2016). "Short–term investors, long–term investments, and firm value." Working paper.

Cronqvist, Henrik and Frank Yu (2015). "Shaped by their daughters: executives, female socialization, and corporate social responsibility." *Journal of Financial Economics*. Forthcoming.

Dechow, Patricia M., Richard G. Sloan, and Amy P. Sweeney (1995). "Detecting earnings management." *Accounting review*, 193–225.

Dechow, Patricia, Weili Ge, and Catherine Schrand (2010). "Understanding earnings quality: A review of the proxies, their determinants and their consequences." *Journal of Accounting and Economics* 50 (2–3), 344–401.

Derrien, François, Ambrus Kecskés, and David Thesmar (2013). "Investor horizons and corporate policies." *Journal of Financial & Quantitative Analysis* 48 (06), 1755–1780.

Di Giuli, Alberta and Leonard Kostovetsky (2014). "Are red or blue companies more likely to go green? Politics and corporate social responsibility." *Journal of Financial Economics* 111 (1), 158–180.

Dimson, Elroy, Oguzhan Karakas, and Xi Li (2015). "Active ownership." *Review of Financial Studies* 28 (12), 3225–3268.

Dyck, Alexander, Karl V. Lins, Lukas Roth, and Hannes F. Wagner (2016). "Do institutional investors drive corporate social responsibility? International evidence." Working paper.

Edmans, Alex (2009). "Blockholder trading, market efficiency, and managerial myopia." *Journal of Finance* 64 (6), 2481–2513.

Edmans, Alex (2011). "Does the stock market fully value intangibles? Employee satisfaction and equity prices." *Journal of Financial Economics* 101 (3), 621–640.

Edmans, Alex and Clifford G. Holderness (2016). "Blockholders: A survey of theory and evidence." Working paper.

Edmans, Alex, Lucius Li, and Chendi Zhang (2016). "Employee satisfaction, labor market flexibility, and stock returns around the world." Working paper.

Fang, Vivian W., Xuan Tian, and Sheri Tice (2014). "Does stock liquidity enhance or impede firm innovation?" *Journal of Finance* 69 (5), 2085–2125.

Ferrell, Allen, Hao Liang, and Luc Renneboog (2016). "Socially responsible firms." *Journal of Financial Economics* 122 (3), 585–606.

Flammer, Caroline (2015a). "Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach." *Management Science* 61 (11), 2549–2568.

Flammer, Caroline (2015b). "Does product market competition foster corporate social responsibility? Evidence from trade liberalization." *Strategic Management Journal* 36 (10), 1469–1485.

Freeman, R. Edward (1984). "Strategic management: A stakeholder approach." Boston.

Galiani, Sebastian, Paul Gertler, and Ernesto Schargrodsky (2005). "Water for life: The impact of the privatization of water services on child mortality." *Journal of Political Economy* 113 (1), 83–120.

Gao, Huasheng, Jarrad Harford, and Kai Li (2015). "CEO turnover-performance sensitivities in private firms." *Journal of Financial & Quantitative Analysis*. Forthcoming.

Gaspar, José-Miguel, Massimo Massa, and Pedro Matos (2005). "Shareholder investment horizons and the market for corporate control." *Journal of Financial Economics* 76 (1), 135–165.

Gaspar, José-Miguel, Massimo Massa, Pedro Matos, Rajdeep Patgiri, and Zahid Rehman (2013). "Payout policy choices and shareholder investment horizons." *Review of Finance* 17 (1), 261–320.

Graham, John R., Campbell R. Harvey, and Shiva Rajgopal (2005). "The economic implications of corporate financial reporting." *Journal of Accounting and Economics* 40 (1–3), 3–73.

Graves, Samuel B. and Sandra A. Waddock (1994). "Institutional owners and corporate social performance." *Academy of Management Journal* 37 (4), 1034–1046.

Grossman, Sanford J. and Oliver D. Hart (1980). "Takeover bids, the free-rider problem, and the theory of the corporation." *Bell Journal of Economics* 11 (1), 42–64.

Harford, Jarrad, Ambrus Kecskés, and Sattar Mansi (2012). "Investor horizons and corporate cash holdings." Working paper.

Harford, Jarrad, Ambrus Kecskés, and Sattar Mansi (2016). "Do long-term investors improve corporate decision making?" Working paper.

Hazarika, Sonali, Jonathan M. Karpoff, and Rajarishi Nahata (2012). "Internal corporate governance, CEO turnover, and earnings management." *Journal of Financial Economics* 104 (1), 44–69.

Heaton, James B. (2002). "Managerial optimism and corporate finance." *Financial Management* 31 (2), 33–45.

Hong, Harrison, Jeffrey D. Kubik, and José Scheinkman (2012). "Financial constraints on corporate goodness." Working paper, Princeton University.

Hwang, Chuan-Yang, Sheridan Titman, and Ying Wang (2015). "Investor tastes, corporate behavior and stock returns: An analysis of corporate social responsibility." Working paper.

Jensen, Michael C. (1986). "Agency cost of free cash flow, corporate finance, and takeovers." *American Economic Review* 76 (2), 323–329.

Jensen, Michael C. (1993). "The modern industrial revolution, exit, and the failure of internal control systems." *The Journal of Finance* 48 (3), 831–880.

Jensen, Michael C. and William H. Meckling (1976). "Theory of the firm: Managerial behavior, agency costs and ownership structure." *Journal of Financial Economics* 3 (4), 305–360.

Johnson, Richard A. and Daniel W. Greening (1999). "The effects of corporate governance and institutional ownership types on corporate social performance." *Academy of Management Journal* 42 (5), 564–576.

Jones, Jennifer J. (1991). "Earnings management during import relief investigations." *Journal of Accounting Research* 29 (2), 193–228.

Kothari, Sagar P., Andrew J. Leone, and Charles E. Wasley (2005). "Performance matched discretionary accrual measures." *Journal of Accounting and Economics* 39 (1), 163–197.

Krüger, Philipp (2015). "Corporate goodness and shareholder wealth." *Journal of Financial Economics* 115 (2), 304–329.

Liang, Hao (2014). "Concentrated wealth and stakeholder value." Working paper.

Liang, Hao and Luc Renneboog (2016). "On the foundations of corporate social responsibility." *The Journal of Finance*. Forthcoming.

Malmendier, Ulrike and Geoffrey Tate (2005). "CEO overconfidence and corporate investment." *Journal of Finance* 60 (6), 2661–2700.

Marris, Robin (1964). "The economic theory of managerial capitalism." London.

Massa, Massimo, Fei Wu, Bohui Zhang, and Hong Zhang (2015). "Saving long-term investment from short-termism: The surprising role of short selling." Working paper.

Masulis, Ronald W. and Syed Walid Reza (2015). "Agency problems of corporate philanthropy." *Review of Financial Studies* 28 (2), 592–636.

McWilliams, Abagail and Donald Siegel (2001). "Corporate social responsibility: A theory of the firm perspective." *Academy of Management Review* 26 (1), 117–127.

Narayanan, M. P. (1985). "Managerial incentives for short-term results." *Journal of Finance* 40 (5), 1469–1484.

Nofsinger, John and Abhishek Varma (2014). "Socially responsible funds and market crises." *Journal of Banking & Finance* 48, 180–193.

Nohria, Nitin and Ranjay Gulati (1996). "Is slack good or bad for innovation?" *Academy of Management Journal* 39 (5), 1245–1264.

Porter, Michael Eugene (1992). "Capital choices: Changing the way America invests in industry." Washington.

Rubio, Silvina and Antonio B. Vazquez (2016). "Do institutional investors influence firm social performance?" Working paper.

Servaes, Henri and Ane Tamayo (2013). "The impact of corporate social responsibility on firm value: The role of customer awareness." *Management Science* 59 (5), 1045–1061.

Shleifer, Andrei and Robert W. Vishny (1986). "Large shareholders and corporate control." *Journal of Political Economy* 94 (3), 461–488.

Shleifer, Andrei and Robert W. Vishny (1990). "Equilibrium short horizons of investors and firms." *American Economic Review* 80 (2), 148–153.

Stein, Jeremy C. (1988). "Takeover threats and managerial myopia." *Journal of Political Economy* 96 (1), 61–80.

Stein, Jeremy C. (1989). "Efficient capital markets, inefficient firms: A model of myopic corporate behavior." *Quarterly Journal of Economics* 104 (4), 655–669.

Teoh, Siew Hong, Ivo Welch, and Tak J. Wong (1998). "Earnings management and the long–run market performance of initial public offerings." *Journal of Finance* 53 (6), 1935–1974.

Williamson, Oliver E. (1964). "The economics of discretionary behavior: Managerial objectives in a theory of the firm." Englewood Cliffs.

Yu, Fang (2008). "Analyst coverage and earnings management." *Journal of Financial Economics* 88 (2), 245–271.

Table 1: Summary statistics

This table presents the descriptive statistics for the variables used in this study. All variables are defined in Appendix A. For every variable, the mean, median, standard deviation (std), 10%-quantile (st10), 90%-quantile (st90), and the number of observations (obs) are presented. All variables are winsorized at 1% and 99%.

name	mean	median	std	st10	st90	obs
totscore_ng.f1	-0.062	0	2.178	-2	3	39,236
totstr_ng.f1	1.326	1	2.049	0	4	39,236
totcon_ng.f1	1.385	1	1.465	0	3	39,236
totscore_perm.f1	0.085	0	1.710	-2	2	28,535
totstr_perm.f1	1.090	1	1.516	0	3	28,535
totcon_perm.f1	1.002	1	1.414	0	3	28,535
duration	5.900	5.945	2.367	2.832	8.769	39,042
in_duration	6.782	6.782	1.126	5.453	8.122	39,057
in_turnover	0.094	0.085	0.039	0.058	0.137	39,056
io_total	0.644	0.675	0.242	0.296	0.940	39,236
io_top1	0.093	0.084	0.056	0.040	0.148	39,236
ioq1	0.077	0.059	0.066	0.014	0.166	39,236
ioq2	0.243	0.236	0.129	0.076	0.419	39,236
ioq3	0.323	0.321	0.148	0.123	0.524	39,236
ioq3_block	0.105	0.079	0.104	0	0.258	39,236
ioq3_small	0.217	0.217	0.094	0.090	0.346	39,236
ioq1_alt	0.089	0.073	0.069	0.019	0.179	39,236
ioq2_alt	0.175	0.164	0.097	0.054	0.306	39,236
ioq3_alt	0.371	0.371	0.170	0.140	0.603	39,236
ioq3_block_alt	0.113	0.088	0.108	0	0.271	39,236
ioq3_small_alt	0.257	0.257	0.114	0.104	0.413	39,236
io_srifunds	0.003	0.001	0.007	0	0.010	39,236
io_ded	0.077	0.059	0.073	0.001	0.178	39,236
log_assets	7.414	7.353	1.753	5.199	9.783	39,236
roa	0.018	0.035	0.152	-0.067	0.123	39,236
cash_holding	0.161	0.077	0.199	0.009	0.452	39,236
cash_dividends	0.013	0.003	0.026	0	0.036	39,236
debt	0.230	0.196	0.207	0	0.507	39,236
book_market	0.537	0.461	0.457	0.142	1.001	39,236
age	20.827	15.500	17.722	3.167	46.250	39,236
stock_ret	0.014	0.013	0.041	-0.029	0.057	39,117
liq	-0.611	-0.058	5.632	-0.638	-0.007	39,227
growth	0.140	0.067	0.353	-0.092	0.392	37,928
capex	0.048	0.032	0.057	0.001	0.110	37,907
ppa	0.251	0.171	0.242	0.013	0.651	37,607
cash_flow	0.057	0.076	0.153	-0.024	0.173	37,288
analyst_coverage	9.669	8	7.579	2	21	37,760
analyst_error	0.082	0.021	0.247	0.004	0.150	34,402

Table 2: Investor horizon, institutional ownership, and KLD scores

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on investor horizon and institutional ownership variables. Columns 1 to 3 show the results for the net KLD score (strengths minus concerns), columns 4 to 6 show the strength-only KLD score, and columns 7 to 9 show the concerns-only KLD score. Investor horizon is proxied by stock duration (duration), investor duration (in_duration), and investor turnover (in_turnover). Institutional ownership (io_total) is calculated as the percentage of the firm's outstanding shares held by institutional investors. All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:								
	totscore_ng.f1			totstr_ng.f1			totcon_ng.f1		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
duration	0.044***			0.036***			−0.009*		
	(0.009)			(0.008)			(0.006)		
in_duration		0.097***			0.036**			−0.064***	
		(0.018)			(0.015)			(0.011)	
in_turnover			−2.408***			−0.896***			1.551***
			(0.379)			(0.295)			(0.256)
io_total	−0.193*	−0.111	−0.197*	−0.885***	−0.855***	−0.887***	−0.670***	−0.719***	−0.663***
	(0.107)	(0.107)	(0.108)	(0.094)	(0.093)	(0.094)	(0.063)	(0.064)	(0.063)
io_srifunds	23.443***	23.551***	23.285***	26.676***	26.710***	26.610***	2.802	2.798	2.968
	(3.448)	(3.447)	(3.445)	(3.009)	(3.007)	(3.004)	(2.012)	(2.007)	(2.011)
log_assets	0.379***	0.370***	0.372***	0.728***	0.726***	0.727***	0.345***	0.353***	0.351***
	(0.027)	(0.028)	(0.028)	(0.025)	(0.026)	(0.026)	(0.017)	(0.017)	(0.017)
roa	0.371***	0.374***	0.338***	−0.100	−0.097	−0.111	−0.458***	−0.458***	−0.434***
	(0.099)	(0.099)	(0.098)	(0.081)	(0.081)	(0.081)	(0.063)	(0.063)	(0.063)
cash_holding	0.360**	0.362**	0.348**	0.728***	0.699***	0.694***	0.337***	0.306***	0.316***
	(0.142)	(0.142)	(0.142)	(0.125)	(0.125)	(0.125)	(0.085)	(0.084)	(0.084)
cash_dividends	2.573***	2.419***	2.583***	3.528***	3.573***	3.633***	0.977**	1.170***	1.061**
	(0.681)	(0.681)	(0.684)	(0.615)	(0.617)	(0.621)	(0.445)	(0.445)	(0.445)
debt	−0.637***	−0.613***	−0.615***	−0.925***	−0.937***	−0.938***	−0.257***	−0.291***	−0.289***
	(0.128)	(0.129)	(0.129)	(0.113)	(0.114)	(0.114)	(0.086)	(0.086)	(0.086)
book_market	−0.273***	−0.271***	−0.266***	−0.346***	−0.344***	−0.343***	−0.057**	−0.057**	−0.060**
	(0.041)	(0.040)	(0.040)	(0.034)	(0.034)	(0.034)	(0.025)	(0.025)	(0.025)
age	−0.002	−0.001	−0.0004	0.009***	0.011***	0.011***	0.011***	0.012***	0.011***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	39,042	39,057	39,056	39,042	39,057	39,056	39,042	39,057	39,056
Adjusted R^2	0.230	0.230	0.230	0.407	0.406	0.406	0.352	0.356	0.355

Table 3: Disaggregated institutional ownership and KLD scores

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on different ownership variables. Columns 1 and 2 show the results for the net KLD score (strengths minus concerns), columns 3 and 4 show the strengths-only KLD score, and columns 5 and 6 show the concerns-only KLD score. Investors are classified into short-term (ioq1), medium-term (ioq2), and long-term (ioq3) investors according to their portfolio durations. Long-term ownership is split into ownership of long-term blockholders (ioq3_block) and into ownership of long-term investors holding small ownership stakes (ioq3_small) in some columns. All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	totscore_ng.f1		totstr_ng.f1		totcon_ng.f1	
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1	-1.484^{***}	-1.561^{***}	-1.287^{***}	-1.331^{***}	0.215	0.249^{*}
	(0.224)	(0.223)	(0.179)	(0.179)	(0.141)	(0.141)
ioq2	-0.231	-0.615^{***}	-0.975^{***}	-1.182^{***}	-0.712^{***}	-0.538^{***}
	(0.141)	(0.145)	(0.121)	(0.126)	(0.087)	(0.090)
ioq3	0.337^{**}		-0.529^{***}		-0.845^{***}	
	(0.145)		(0.123)		(0.090)	
ioq3_small		2.115^{***}		0.464^{**}		-1.622^{***}
		(0.271)		(0.230)		(0.170)
ioq3_block		-0.571^{***}		-1.070^{***}		-0.483^{***}
		(0.175)		(0.152)		(0.116)
io_srifunds	22.588^{***}	20.987^{***}	26.357^{***}	25.476^{***}	3.408^{*}	4.121^{**}
	(3.425)	(3.397)	(2.989)	(2.970)	(2.003)	(1.988)
log_assets	0.366^{***}	0.319^{***}	0.719^{***}	0.692^{***}	0.349^{***}	0.369^{***}
	(0.027)	(0.027)	(0.025)	(0.025)	(0.017)	(0.017)
roa	0.370^{***}	0.336^{***}	-0.104	-0.122	-0.461^{***}	-0.445^{***}
	(0.099)	(0.098)	(0.081)	(0.080)	(0.063)	(0.063)
cash_holding	0.381^{***}	0.416^{***}	0.716^{***}	0.735^{***}	0.306^{***}	0.290^{***}
	(0.141)	(0.141)	(0.125)	(0.124)	(0.084)	(0.084)
cash_dividends	2.556^{***}	2.166^{***}	3.611^{***}	3.385^{***}	1.064^{**}	1.227^{***}
	(0.679)	(0.673)	(0.616)	(0.611)	(0.442)	(0.440)
debt	-0.604^{***}	-0.473^{***}	-0.925^{***}	-0.849^{***}	-0.287^{***}	-0.342^{***}
	(0.129)	(0.129)	(0.114)	(0.114)	(0.086)	(0.087)
book_market	-0.274^{***}	-0.233^{***}	-0.348^{***}	-0.324^{***}	-0.057^{**}	-0.074^{***}
	(0.040)	(0.040)	(0.034)	(0.034)	(0.025)	(0.025)
age	-0.001	-0.002	0.011^{***}	0.010^{***}	0.011^{***}	0.012^{***}
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	39,236	39,236	39,236	39,236	39,236	39,236
Adjusted R^2	0.231	0.235	0.406	0.408	0.355	0.357

Table 4: Probabilities of under- and overinvestment versus normal investment

This table shows the estimated log odd ratios (and standard errors in parenthesis) from multinomial logit regressions of under-/overinvesting versus normal investing. A firm underinvests (or overinvests) in CSR if its net KLD score is in the bottom (or top) quartile of its industry-year group conditional on firm size and book-to-market ratio. Panel A shows the results for investors classified according to their portfolio durations, and Panel B shows investors classified according to their portfolio churn ratios. Institutional ownership is split into ownership of short-term investors (ioq1), medium-term investors (ioq2), long-term blockholders (ioq3_block), and long-term non-blockholders (ioq3_small). All models include year and industry (sic2) dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Investors classified according to their portfolio durations

	(1)	
	group_f1	
	underinvest	overinvest
ioq1	1.129***	-1.581***
	(0.283)	(0.320)
ioq2	0.490***	-0.523***
	(0.171)	(0.189)
ioq3_small	-1.724***	1.051***
	(0.304)	(0.298)
ioq3_block	-0.344*	-0.490**
	(0.202)	(0.214)
io_srifunds	-10.65***	13.84***
	(3.287)	(3.166)
log_assets	0.382***	0.277***
	(0.0210)	(0.0242)
roa	-0.179	-0.234*
	(0.134)	(0.139)
cash_holding	-0.453***	0.797***
	(0.152)	(0.153)
cash_dividends	-1.537	1.896**
	(0.981)	(0.836)
debt	0.377***	-0.667***
	(0.140)	(0.154)
book_market	-0.244***	-0.206***
	(0.0468)	(0.0553)
age	0.00264	0.00145
	(0.00186)	(0.00191)
N	33961	
pseudo R^2	0.039	

Panel B: Investors classified according to their portfolio churn ratios

	(1)	
	group_f1	
	underinvest	overinvest
ioq1_alt	1.335***	-1.162***
	(0.281)	(0.322)
ioq2_alt	0.239	-1.053***
	(0.207)	(0.230)
ioq3_small_alt	-0.789***	0.980***
	(0.242)	(0.238)
ioq3_block_alt	-0.442**	-0.516***
	(0.192)	(0.200)
io_srifunds	-11.65***	14.19***
	(3.292)	(3.162)
log_assets	0.367***	0.271***
	(0.0213)	(0.0247)
roa	-0.166	-0.255*
	(0.134)	(0.138)
cash_holding	-0.414***	0.744***
	(0.152)	(0.153)
cash_dividends	-1.888*	1.998**
	(1.005)	(0.827)
debt	0.421***	-0.657***
	(0.140)	(0.155)
book_market	-0.237***	-0.191***
	(0.0469)	(0.0554)
age	0.00163	0.00189
	(0.00186)	(0.00188)
N	33961	
pseudo R^2	0.038	

Table 5: First-difference regressions with investor horizon and KLD scores

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS first-difference panel regressions. The coefficients of firm controls are omitted for brevity. Every variable is denoted by a 'd' indicating that it is differenced. Panel A shows the results for regressions of changes in KLD scores on lagged changes in investor horizon and institutional ownership variables. Panel B gives the results of first-difference regressions of investor horizon on KLD scores. In both panels, columns 1 to 3 show the results for the net KLD score, columns 4 to 6 show the strengths-only KLD score, and columns 7 to 9 show the concerns-only KLD score. KLD scores include only KLD ratings that continuously existed from 1991 to 2009. Investor horizon is proxied by stock duration (duration), investor duration (in_duration), and investor turnover (in_turnover). Institutional ownership (io_total) is calculated as the percentage of the firm's outstanding shares that are held by institutional investors. All models include differenced firm controls and year dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First-difference regressions of KLD scores on lagged investor horizon

	Dependent variable:								
	dtotscore_perm.f1			dtotstr_perm.f1			dtotcon_perm.f1		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
dduration	0.013***			0.006*			−0.008**		
	(0.005)			(0.003)			(0.003)		
din_duration		0.018**			0.00002			−0.019***	
		(0.008)			(0.006)			(0.006)	
din_turnover			−0.378**			−0.020			0.390***
			(0.161)			(0.115)			(0.122)
dio_total	0.053	0.044	0.027	−0.052	−0.064*	−0.064*	−0.092**	−0.094**	−0.077**
	(0.049)	(0.049)	(0.049)	(0.035)	(0.035)	(0.035)	(0.039)	(0.038)	(0.039)
Observations	23,162	23,172	23,172	23,162	23,172	23,172	23,162	23,172	23,172
Adjusted R^2	0.007	0.007	0.007	0.008	0.008	0.008	0.014	0.014	0.014

Panel B: First-difference regressions of investor horizon on KLD scores

	Dependent variable:								
	dduration			din_duration			din_turnover		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
dtotscore_perm	0.012			0.006			−0.0001		
	(0.008)			(0.004)			(0.0002)		
dtotstr_perm		0.008			0.014**			−0.0002	
		(0.012)			(0.006)			(0.0003)	
dtotcon_perm			−0.018			−0.002			0.00001
			(0.012)			(0.006)			(0.0003)
Observations	23,425	23,425	23,425	23,434	23,434	23,434	23,434	23,434	23,434
Adjusted R^2	0.073	0.073	0.073	0.234	0.234	0.234	0.159	0.159	0.159

Table 6: Instrumental variable approach with investors' client flows

This table shows the estimated coefficients (and standard errors in parenthesis) from an instrumental variable approach that uses the flows of the investors' clients as an instrument for investor horizon. Columns 1 and 2 show the results of the first and second stage of an instrumental variable regression of the net KLD score from 1991 to 2013 on instrumented investor duration (in_duration). Column 3 shows the results for the net KLD score from 1991 to 2009. Columns 4 and 5 show the results of the first and second stage of a regression of the net KLD score from 1991 to 2013 on instrumented investor turnover (in_turnover). Column 6 shows the results for the net KLD score from 1991 to 2009. The instrumental variable (inv_outflow) gives the average outflows of the investors' clients over the last six quarters. All models include year and industry (sic3) fixed effects. F-statistics on the excluded instrument are shown for every first stage regression. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	1-stage	totscore_ng.fl	totscore_perm.fl	1-stage	totscore_ng.fl	totscore_perm.fl
	(1)	(2)	(3)	(4)	(5)	(6)
log_assets	0.082^{***}	0.371^{***}	-0.054^{*}	-0.002^{***}	0.375^{***}	-0.046^{*}
	(0.008)	(0.030)	(0.028)	(0.0002)	(0.030)	(0.027)
roa	-0.185^{***}	0.381^{***}	0.538^{***}	-0.005^{**}	0.355^{***}	0.511^{***}
	(0.058)	(0.110)	(0.105)	(0.002)	(0.110)	(0.105)
cash_holding	-0.546^{***}	0.421^{***}	0.181	0.015^{***}	0.397^{***}	0.152
	(0.061)	(0.155)	(0.145)	(0.002)	(0.154)	(0.144)
cash_dividends	2.888^{***}	2.549^{***}	0.897	-0.043^{***}	2.736^{***}	1.178
	(0.393)	(0.739)	(0.727)	(0.009)	(0.735)	(0.724)
debt	-0.423^{***}	-0.642^{***}	-0.135	0.013^{***}	-0.658^{***}	-0.160
	(0.057)	(0.141)	(0.137)	(0.002)	(0.140)	(0.135)
book_market	0.057^{***}	-0.266^{***}	-0.097^{**}	-0.0003	-0.261^{***}	-0.090^{**}
	(0.019)	(0.045)	(0.044)	(0.001)	(0.045)	(0.044)
age	0.013^{***}	-0.0001	-0.006^{**}	-0.0002^{***}	0.001	-0.005^{**}
	(0.001)	(0.003)	(0.003)	(0.00002)	(0.003)	(0.003)
io_srifunds	0.768	23.625^{***}	12.476^{***}	-0.119^{***}	23.481^{***}	12.263^{***}
	(1.070)	(3.609)	(3.293)	(0.023)	(3.613)	(3.299)
io_total	-0.713^{***}	-0.041	0.122	-0.005^{***}	-0.116	0.019
	(0.051)	(0.113)	(0.107)	(0.001)	(0.114)	(0.106)
inv_outflow	-37.543^{***}			1.900^{***}		
	(1.253)			(0.045)		
'in_duration(fit)'		0.091^{**}	0.122^{***}			
		(0.036)	(0.036)			
'in_turnover(fit)'					-1.806^{**}	-2.388^{***}
					(0.705)	(0.695)
F(instrument)	898.0			1793.2		
Observations	34,996	34,996	25,235	34,996	34,996	25,235
Adjusted R^2	0.433	0.229	0.212	0.476	0.228	0.210

Table 7: Difference-in-difference approach with S&P 500 membership changes

This table shows the estimated coefficients (and standard errors in parenthesis) from a difference-in-difference model. The model includes firm and year fixed effects used to compare the change in outcomes in the treatment group to the change in outcomes in the control group. When a firm is included into the S&P 500 index, its short-term (ioq1), medium-term (ioq2), long-term non-blockholder (ioq3_small), and long-term blockholder (ioq3_block) ownership changes, as shown in columns 1 to 4. This change in the ownership structure results in changes of the net KLD score (totscore_perm), the strengths-only KLD score (totstr_perm), and the concerns-only KLD score (totcon_perm), as presented in columns 5 to 7. The variable sp500 is a dummy that is one if a firm was a member of the S&P 500 index in a given year and zero otherwise. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:						
	ioq1	ioq2	ioq3_small	ioq3_block	totscore_perm.f1	totstr_perm.f1	totcon_perm.f1
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
sp500	-0.019^{***}	-0.031^{***}	0.033^{***}	-0.006	0.170^{*}	0.245^{***}	0.083
	(0.003)	(0.005)	(0.003)	(0.005)	(0.092)	(0.059)	(0.074)
io_srifunds	0.161^{**}	0.275^{**}	0.311^{***}	0.553^{***}	-1.436	2.547	4.189^{**}
	(0.070)	(0.133)	(0.088)	(0.154)	(2.419)	(1.907)	(1.846)
log_assets	-0.013^{***}	0.016^{***}	0.034^{***}	-0.008^{***}	-0.081	0.076^{*}	0.149^{***}
	(0.002)	(0.003)	(0.002)	(0.003)	(0.058)	(0.039)	(0.042)
roa	0.023^{***}	0.062^{***}	0.019^{***}	-0.007	0.423^{***}	0.008	-0.434^{***}
	(0.005)	(0.008)	(0.004)	(0.006)	(0.092)	(0.064)	(0.069)
cash_holding	0.031^{***}	0.026^{**}	0.005	0.0004	-0.283^{**}	-0.019	0.270^{***}
	(0.007)	(0.010)	(0.006)	(0.010)	(0.137)	(0.117)	(0.103)
cash_dividends	-0.103^{***}	-0.169^{***}	0.094^{***}	-0.114^{**}	0.941	1.034^{*}	0.165
	(0.030)	(0.048)	(0.035)	(0.048)	(0.702)	(0.529)	(0.571)
debt	0.011^{**}	-0.009	-0.044^{***}	0.035^{***}	0.060	-0.039	-0.105
	(0.005)	(0.010)	(0.006)	(0.009)	(0.152)	(0.113)	(0.111)
book_market	-0.010^{***}	-0.029^{***}	-0.016^{***}	0.015^{***}	-0.040	-0.074^{***}	-0.023
	(0.002)	(0.003)	(0.002)	(0.002)	(0.035)	(0.022)	(0.026)
age	-0.0002	-0.001	-0.002^{***}	0.003^{***}	0.027	-0.019	-0.046^{*}
	(0.0004)	(0.001)	(0.001)	(0.001)	(0.038)	(0.024)	(0.025)
stock_ret.l1	0.086^{***}	0.108^{***}	0.009	-0.094^{***}	-0.650^{***}	-0.530^{***}	0.167
	(0.012)	(0.019)	(0.011)	(0.015)	(0.205)	(0.145)	(0.146)
growth.l1	-0.002	0.012^{***}	0.001	-0.005^{***}	0.028	0.006	-0.020
	(0.001)	(0.002)	(0.001)	(0.002)	(0.025)	(0.017)	(0.018)
liq.l1	0.00002	0.001^{**}	0.0005^{***}	-0.0003	-0.001	-0.004^{**}	-0.003
	(0.0001)	(0.0003)	(0.0001)	(0.0002)	(0.003)	(0.002)	(0.003)
Observations	25,920	25,920	25,920	25,920	25,920	25,920	25,920
Adjusted R^2	0.502	0.641	0.752	0.554	0.673	0.782	0.741

Table 8: Alternative measures of CSR

This table shows the estimated marginal effects (and standard errors in parenthesis) from probit regressions. Panel A investigates whether a firm was targeted by a shareholder proposal on CSR issues in a given year or not. Shareholder proposal data comes from RiskMetrics, covering data on shareholder proposals on CSR issues between 1997 and 2013. Panel B examines whether a firm was a member of the Dow Jones Sustainability Index in a given year or not. Control (non-treated) firms are matched on industry, market cap, and book-to-market. Institutional ownership is split into ownership of short-term investors (ioq1), medium-term investors (ioq2), long-term non-blockholders (ioq3_small), and long-term blockholders (ioq3_block). McFadden's Pseudo R^2 are presented for every model. All models include year dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Shareholder proposals on CSR issues

	Dependent variable:	
	sri_proposal.f1	
	(1)	(2)
ioq1	0.270***	0.242**
	(0.096)	(0.096)
ioq2	0.375***	0.242***
	(0.050)	(0.053)
ioq3	0.564***	
	(0.043)	
ioq3_small		0.968***
		(0.065)
ioq3_block		0.252***
		(0.059)
io_srifunds	1.364*	0.926
	(0.714)	(0.698)
log_assets	0.064***	0.054***
	(0.006)	(0.006)
roa	0.197**	0.148*
	(0.085)	(0.077)
cash_holding	−0.069	−0.049
	(0.051)	(0.050)
cash_dividends	0.891***	0.829***
	(0.244)	(0.238)
debt	0.091**	0.126***
	(0.041)	(0.041)
book_market	0.033*	0.050**
	(0.020)	(0.019)
age	0.004***	0.003***
	(0.0004)	(0.0004)
Pseudo R2	0.21	0.22
Observations	12,468	12,468

Panel B: Dow Jones Sustainability Index

	Dependent variable:	
	djsi.f1	
	(1)	(2)
ioq1	−0.180	−0.214
	(0.173)	(0.174)
ioq2	0.265***	0.168*
	(0.078)	(0.087)
ioq3	0.329***	
	(0.053)	
ioq3_small		0.546***
		(0.081)
ioq3_block		0.155*
		(0.080)
io_srifunds	1.204	0.872
	(1.047)	(1.022)
log_assets	0.060***	0.052***
	(0.008)	(0.008)
roa	0.163	0.116
	(0.107)	(0.103)
cash_holding	−0.058	−0.042
	(0.062)	(0.062)
cash_dividends	−0.137	−0.170
	(0.321)	(0.330)
debt	0.047	0.056
	(0.045)	(0.045)
book_market	−0.048*	−0.041
	(0.027)	(0.027)
age	−0.0002	−0.0003
	(0.0004)	(0.0004)
djsi	0.834***	0.827***
	(0.015)	(0.016)
Pseudo R2	0.65	0.66
Observations	4,572	4,572

Table 9: Earnings management cross-sectional evidence

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of the net KLD score on different ownership variables. The coefficients of firm controls are omitted for brevity. In both panels, I split firms yearly into two subsamples. A firm is assigned to the low earnings management subsample ("EM Low") if its absolute level of discretionary accruals is lower than the median, and otherwise the firm is assigned to the high earnings management subsample ("EM High"). Discretionary accruals are calculated according to the modified Jones model, as described in Appendix B. In Panel A, I regress the net KLD score on short-term ownership (ioq1 and ioq1_alt), investor duration (in_duration), and investor turnover (in_turnover). In Panel B, I regress the net KLD score on long-term blockholder ownership (ioq3_block and ioq3_block_alt), ownership of the largest institutional investor (io_top1), and ownership of dedicated investors (io_ded). All models include firm controls, year dummies, and industry (sic3) dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Short-term pressure exerted by short-term investors

	Dependent variable:							
	totscore_ng.f1							
	EM Low	EM High	EM Low	EM High	EM Low	EM High	EM Low	EM High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
io_total	−0.228	0.007	−0.264	0.032	−0.313*	−0.202	−0.390**	−0.352***
	(0.165)	(0.134)	(0.168)	(0.135)	(0.164)	(0.131)	(0.165)	(0.132)
ioq1	−1.181***	−2.238***						
	(0.391)	(0.305)						
ioq1_alt			−0.732*	−2.139***				
			(0.399)	(0.306)				
in_duration					0.092***	0.162***		
					(0.032)	(0.023)		
in_turnover							−1.790***	−3.825***
							(0.694)	(0.501)
Observations	15,775	15,764	15,775	15,764	15,721	15,710	15,721	15,709
Adjusted R^2	0.236	0.235	0.236	0.235	0.236	0.235	0.235	0.235

Panel B: Monitoring by long-term blockholders

	Dependent variable:							
	totscore_ng.f1							
	EM Low	EM High	EM Low	EM High	EM Low	EM High	EM Low	EM High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
io_total	−0.180	−0.296**	−0.156	−0.291**	−0.122	−0.197	−0.227	−0.216*
	(0.171)	(0.135)	(0.174)	(0.143)	(0.168)	(0.135)	(0.164)	(0.130)
ioq3_block	−0.767***	0.005						
	(0.281)	(0.235)						
ioq3_block_alt			−0.773***	−0.013				
			(0.269)	(0.230)				
io_top1					−2.112***	−0.875*		
					(0.524)	(0.477)		
io_ded							−0.979***	−0.597*
							(0.370)	(0.346)
Observations	15,775	15,764	15,775	15,764	15,775	15,764	15,775	15,764
Adjusted R^2	0.236	0.232	0.236	0.232	0.237	0.232	0.236	0.232

Table 10: Insider ownership cross-sectional evidence

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of the net KLD score on institutional ownership variables. Firms are split into two subsamples according to this rule: A firm is assigned to the low insider ownership subsample ("IN Low") if its insider ownership level is lower than the median, and otherwise the firm is assigned to the high insider ownership subsample ("IN High"). Data on insider ownership comes from the Compustat Execucomp database. In every cross-sectional test, I regress the net KLD score on institutional ownership (io_total), long-term blockholder ownership (ioq3_block and ioq3_block_alt), ownership of the largest institutional investor (io_top1), and ownership of dedicated investors (io_ded). All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:							
	totscore_ng.f1							
	IN Low	IN High	IN Low	IN High	IN Low	IN High	IN Low	IN High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
io_total	−0.380	−0.266	−0.368	−0.163	−0.254	−0.099	−0.288	−0.173
	(0.281)	(0.185)	(0.286)	(0.190)	(0.286)	(0.182)	(0.280)	(0.181)
ioq3_block	−0.801**	0.514*						
	(0.401)	(0.287)						
ioq3_block_alt			−0.739*	0.085				
			(0.384)	(0.269)				
io_top1					−2.892***	−0.407		
					(0.918)	(0.698)		
io_ded							−1.844***	0.256
							(0.558)	(0.448)
io_srifunds	17.526***	9.896**	17.291***	10.008**	17.212***	10.003**	18.640***	9.754**
	(4.983)	(4.918)	(4.978)	(4.916)	(4.961)	(4.907)	(4.977)	(4.930)
log_assets	0.563***	0.333***	0.563***	0.328***	0.558***	0.325***	0.579***	0.326***
	(0.048)	(0.050)	(0.047)	(0.050)	(0.047)	(0.049)	(0.047)	(0.049)
roa	1.057***	0.748***	1.049***	0.726***	1.023***	0.709***	1.039***	0.730***
	(0.282)	(0.195)	(0.283)	(0.196)	(0.282)	(0.195)	(0.282)	(0.195)
cash_holding	0.957**	0.189	0.963**	0.178	0.975**	0.172	0.990***	0.178
	(0.381)	(0.218)	(0.381)	(0.219)	(0.379)	(0.219)	(0.380)	(0.219)
cash_dividends	4.826**	3.597***	4.802**	3.608***	4.880**	3.617***	4.629**	3.636***
	(1.980)	(1.095)	(1.975)	(1.092)	(1.981)	(1.096)	(1.962)	(1.087)
debt	−0.675**	−0.636***	−0.672**	−0.626***	−0.632**	−0.617***	−0.637**	−0.628***
	(0.311)	(0.214)	(0.311)	(0.214)	(0.313)	(0.216)	(0.311)	(0.215)
book_market	−0.274***	−0.156**	−0.280***	−0.146**	−0.275***	−0.142**	−0.297***	−0.142**
	(0.100)	(0.066)	(0.099)	(0.065)	(0.099)	(0.065)	(0.098)	(0.065)
age	−0.001	−0.004	−0.001	−0.004	−0.001	−0.004	−0.001	−0.004
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)
Observations	12,134	12,126	12,134	12,126	12,134	12,126	12,134	12,126
Adjusted R^2	0.317	0.257	0.317	0.257	0.318	0.257	0.318	0.257

Table 11: Shareholder value relevant ESG reputational risks

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of RepRisk ESG reputational risks on institutional ownership variables. Panel A shows the results for investors classified according to their portfolio durations, and Panel B shows investors classified according to their portfolio churn ratios. Column 1 and 2 show estimates from regressions of the raw and log reputational risk score (reprisks). The RepRisk score is an annual sum of the event points of the firm's ESG incidents in a given year. Column 3 gives the logarithm of the annual sum of the dollar shareholder value losses associated with ESG incidents (reprisks_loss). Institutional ownership is split into ownership of short-term investors (ioq1), medium-term investors (ioq2), long-term non-blockholders (ioq3_small), and long-term blockholders (ioq3_block). All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Investors classified according to their portfolio durations

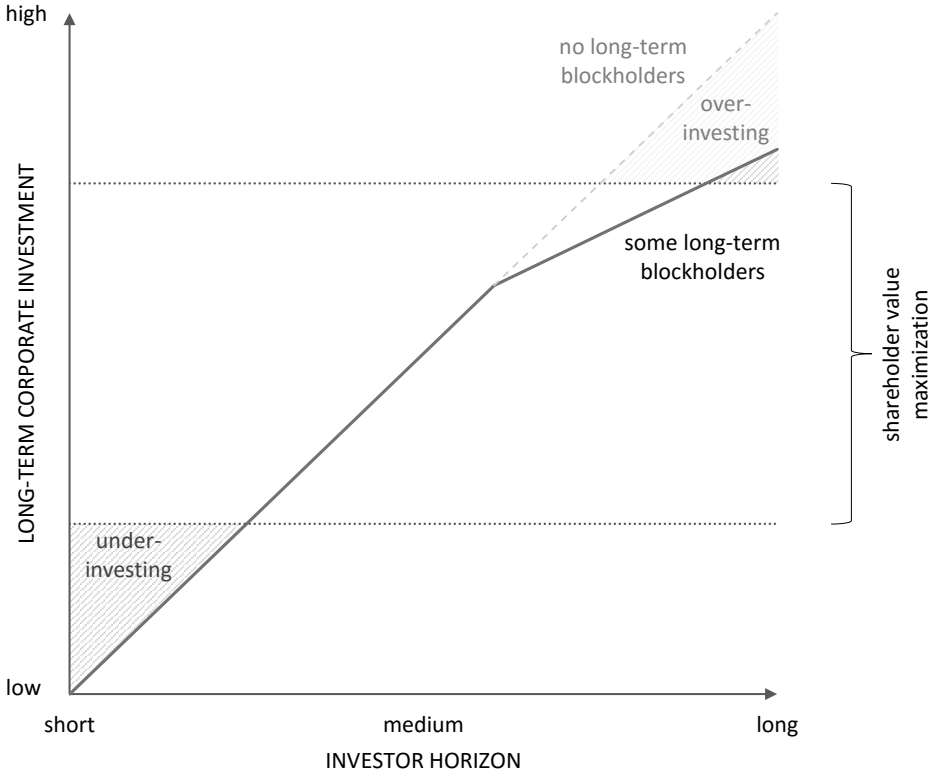
	Dependent variable:		
	reprisks.f1	log_reprisks.f1	log_reprisks_loss.f1
	(1)	(2)	(3)
ioq1	3.632**	0.421**	0.028
	(1.644)	(0.185)	(0.272)
ioq2	−1.446	−0.163	−0.294*
	(1.049)	(0.119)	(0.175)
ioq3_small	−3.294**	−0.307*	0.298
	(1.516)	(0.169)	(0.287)
ioq3_block	−5.214***	−0.695***	−1.143***
	(1.018)	(0.121)	(0.187)
io_srifunds	27.149*	5.878***	5.761*
	(16.115)	(1.939)	(3.460)
log_assets	2.764***	0.360***	0.493***
	(0.096)	(0.011)	(0.018)
roa	−2.765***	−0.340***	−0.228**
	(0.704)	(0.080)	(0.105)
cash_holding	3.678***	0.460***	0.860***
	(0.762)	(0.091)	(0.153)
cash_dividends	8.669**	1.015**	0.722
	(4.207)	(0.490)	(0.746)
debt	−1.458**	−0.155*	−0.301**
	(0.653)	(0.079)	(0.119)
book_market	−0.438**	−0.056**	−0.199***
	(0.197)	(0.023)	(0.036)
age	0.028***	0.004***	0.007***
	(0.008)	(0.001)	(0.002)
Observations	14,947	14,947	14,947
Adjusted R^2	0.177	0.263	0.174

Panel B: Investors classified according to their portfolio churn ratios

	Dependent variable:		
	reprisks.f1	log_reprisks.f1	log_reprisks_loss.f1
	(1)	(2)	(3)
ioq1_alt	2.564	0.406**	0.126
	(1.585)	(0.182)	(0.266)
ioq2_alt	−4.215***	−0.549***	−0.983***
	(1.321)	(0.151)	(0.216)
ioq3_small_alt	−1.370	−0.115	0.436**
	(1.141)	(0.129)	(0.219)
ioq3_block_alt	−4.521***	−0.567***	−0.900***
	(0.966)	(0.114)	(0.188)
io_srifunds	24.576	5.698***	5.473
	(16.058)	(1.932)	(3.448)
log_assets	2.720***	0.356***	0.486***
	(0.096)	(0.011)	(0.018)
roa	−2.715***	−0.334***	−0.227**
	(0.704)	(0.080)	(0.105)
cash_holding	3.750***	0.465***	0.854***
	(0.762)	(0.091)	(0.152)
cash_dividends	7.892*	0.943*	0.687
	(4.194)	(0.489)	(0.748)
debt	−1.299**	−0.141*	−0.275**
	(0.658)	(0.080)	(0.120)
book_market	−0.426**	−0.055**	−0.195***
	(0.197)	(0.023)	(0.036)
age	0.024***	0.004***	0.006***
	(0.008)	(0.001)	(0.002)
Observations	14,947	14,947	14,947
Adjusted R^2	0.177	0.263	0.174

Figure 1: The main findings of this paper

This figure illustrates the paper's main findings qualitatively. It shows the effect of investor horizon on long-term corporate investment. If institutional investors have a short-term horizon, then managers underinvest in long-term investments to increase short-term profits. Managers spend more on long-term investments when investor horizon increases. If investors have a long-term horizon, then the effect of investor horizon on long-term corporate investment depends on whether long-term investors are blockholders or non-blockholders. If long-term investors are not blockholders and thus do not monitor managers, managers tend to overinvest in long-term investments for personal benefits (gray dashed line). However, if some long-term investors are blockholders who monitor managers, managers neither under- nor overinvest in long-term corporate investment (right side of the black solid line).



Internet Appendix for "Short-Term Investors, Monitoring Blockholders, and Long-Term Corporate Investment"

Simon Gloßner
Catholic University Eichstätt-Ingolstadt

January 15, 2017

Table IA1: Regressions of different KLD dimensions on investor horizon

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on investor horizon and institutional ownership variables. The coefficients of firm controls are omitted for brevity. Every column shows the results for KLD scores (strengths minus concerns) of different dimensions: community (1), diversity (2), employment (3), environment (4), human rights (5), and product (6). Investor horizon is proxied by stock duration (Panel A), investor duration (Panel B), and investor turnover (Panel C). All models include firm controls, year dummies, and industry (sic3) dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Investor horizon proxied by stock duration

	Dependent variable:					
	com.f1	div.f1	emp.f1	env.f1	hum.f1	pro.f1
	(1)	(2)	(3)	(4)	(5)	(6)
duration	0.011^{***}	0.015^{***}	0.017^{***}	0.005^{*}	-0.001^{*}	-0.003
	(0.002)	(0.005)	(0.003)	(0.003)	(0.001)	(0.002)
io_total	-0.068^{***}	-0.143^{***}	-0.103^{***}	-0.009	0.044^{***}	0.081^{***}
	(0.024)	(0.055)	(0.035)	(0.031)	(0.009)	(0.025)
Observations	39,042	39,042	39,042	39,042	39,042	39,042
Adjusted R^2	0.170	0.378	0.179	0.214	0.171	0.210

Panel B: Investor horizon proxied by investor duration

	Dependent variable:					
	com.f1	div.f1	emp.f1	env.f1	hum.f1	pro.f1
	(1)	(2)	(3)	(4)	(5)	(6)
in_duration	0.008^{*}	0.031^{***}	0.038^{***}	0.012^{**}	0.001	0.007
	(0.004)	(0.009)	(0.007)	(0.005)	(0.001)	(0.005)
io_total	-0.063^{***}	-0.117^{**}	-0.075^{**}	0.003	0.047^{***}	0.090^{***}
	(0.024)	(0.055)	(0.035)	(0.031)	(0.010)	(0.026)
Observations	39,057	39,057	39,057	39,057	39,057	39,057
Adjusted R^2	0.169	0.378	0.179	0.216	0.173	0.211

Panel C: Investor horizon proxied by investor turnover

	Dependent variable:					
	com.f1	div.f1	emp.f1	env.f1	hum.f1	pro.f1
	(1)	(2)	(3)	(4)	(5)	(6)
in_turnover	-0.090	-0.614^{***}	-0.995^{***}	-0.429^{***}	-0.029	-0.192^{**}
	(0.081)	(0.199)	(0.156)	(0.116)	(0.034)	(0.092)
io_total	-0.069^{***}	-0.142^{***}	-0.110^{***}	-0.009	0.047^{***}	0.083^{***}
	(0.025)	(0.055)	(0.035)	(0.031)	(0.010)	(0.026)
Observations	39,056	39,056	39,056	39,056	39,056	39,056
Adjusted R^2	0.169	0.377	0.179	0.216	0.173	0.211

Table IA2: Contingency table of investor horizon and institutional investor type

This table shows a contingency table of investor horizon and investor type. Observations are on a firm-year level. Data on investor type is gratefully provided by Brian J. Bushee on his homepage. For each investor type, I show how many investors are short-term (Short N), medium-term (Medium N), and long-term (Long N) investors. In addition to the absolute numbers, I give relative numbers (Short/Medium/Long R) based on the total number of investors in each row.

Panel A: Investors classified according to their portfolio durations

Investor	Short N	Short R	Medium N	Medium R	Long N	Long R
Bank Trust	268	7	955	23	2,843	70
Corporate Pension Fund	83	11	253	34	410	55
Investment Advisor/Company	10,076	32	12,074	38	9,481	30
Insurance Company	192	13	487	33	777	53
Miscellaneous	889	34	928	35	823	31
Public Pension Fund	24	6	77	19	300	75
University and Foundations	26	10	100	37	143	53

Panel B: Investors classified according to their portfolio churn ratios

Investor	Short N	Short R	Medium N	Medium R	Long N	Long R
Bank Trust	415	9	1,295	29	2,763	62
Corporate Pension Fund	163	20	287	35	367	45
Investment Advisor/Company	12,090	35	12,171	36	9,894	29
Insurance Company	359	23	511	33	675	44
Miscellaneous	1,080	38	925	32	865	30
Public Pension Fund	31	7	101	23	298	69
University and Foundations	74	25	117	40	102	35

Table IA3: Disaggregated institutional ownership and KLD scores

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on different institutional ownership variables. Columns 1 and 2 show the results for the net KLD score (strengths minus concerns), columns 3 and 4 show the strengths-only KLD score, and columns 5 and 6 show the concerns-only KLD score. Investors are classified into short-term (ioq1_alt), medium-term (ioq2_alt), and long-term (ioq3_alt) investors according to their portfolio churn ratios. Long-term ownership is split into ownership of long-term blockholders (ioq3_block_alt) and into ownership of long-term investors holding small ownership stakes (ioq3_small_alt) in some columns. All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	totscore_ng.f1		totstr_ng.f1		totcon_ng.f1	
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1_alt	-1.163^{***}	-1.432^{***}	-1.173^{***}	-1.324^{***}	0.006	0.121
	(0.226)	(0.228)	(0.177)	(0.180)	(0.147)	(0.148)
ioq2_alt	-0.791^{***}	-1.204^{***}	-1.448^{***}	-1.679^{***}	-0.610^{***}	-0.434^{***}
	(0.163)	(0.167)	(0.142)	(0.147)	(0.099)	(0.102)
ioq3_alt	0.476^{***}		-0.422^{***}		-0.882^{***}	
	(0.130)		(0.110)		(0.079)	
ioq3_small_alt		1.958^{***}		0.428^{**}		-1.495^{***}
		(0.217)		(0.186)		(0.136)
ioq3_block_alt		-0.666^{***}		-1.096^{***}		-0.426^{***}
		(0.165)		(0.143)		(0.107)
io_srifunds	22.794^{***}	21.420^{***}	26.539^{***}	25.767^{***}	3.380^{*}	3.962^{**}
	(3.420)	(3.391)	(2.983)	(2.965)	(2.006)	(1.997)
log_assets	0.361^{***}	0.308^{***}	0.714^{***}	0.683^{***}	0.350^{***}	0.371^{***}
	(0.027)	(0.028)	(0.025)	(0.025)	(0.017)	(0.017)
roa	0.359^{***}	0.296^{***}	-0.106	-0.142^{*}	-0.452^{***}	-0.425^{***}
	(0.098)	(0.097)	(0.081)	(0.080)	(0.063)	(0.063)
cash_holding	0.347^{**}	0.367^{***}	0.697^{***}	0.708^{***}	0.321^{***}	0.312^{***}
	(0.141)	(0.141)	(0.124)	(0.124)	(0.084)	(0.084)
cash_dividends	2.606^{***}	2.282^{***}	3.597^{***}	3.404^{***}	1.002^{**}	1.129^{**}
	(0.678)	(0.675)	(0.615)	(0.613)	(0.443)	(0.443)
debt	-0.597^{***}	-0.447^{***}	-0.917^{***}	-0.828^{***}	-0.286^{***}	-0.346^{***}
	(0.129)	(0.129)	(0.114)	(0.114)	(0.086)	(0.087)
book_market	-0.268^{***}	-0.209^{***}	-0.343^{***}	-0.308^{***}	-0.058^{**}	-0.082^{***}
	(0.040)	(0.040)	(0.034)	(0.034)	(0.025)	(0.025)
age	-0.0005	-0.001	0.011^{***}	0.011^{***}	0.011^{***}	0.012^{***}
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	39,236	39,236	39,236	39,236	39,236	39,236
Adjusted R^2	0.232	0.237	0.407	0.409	0.355	0.357

Table IA4: Regressions of different KLD dimensions on ownership variables

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on ownership variables. The coefficients of firm controls are omitted for brevity. Every column shows the results for KLD scores (strengths minus concerns) of different dimensions: community (1), diversity (2), employment (3), environment (4), human rights (5), and product (6). In Panel A, investors are classified into short-, medium-, and long-term investors (ioq1, ioq2, ioq3_small, ioq3_block) according to their portfolio durations. In Panel B, investors are classified into short-, medium-, and long-term investors (ioq1_alt, ioq2_alt, ioq3_small_alt, ioq3_block_alt) according to their portfolio churn ratios. All models include firm controls, year dummies, and industry (sic3) dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Investors classified according to their portfolio durations

	Dependent variable:					
	com.f1	div.f1	emp.f1	env.f1	hum.f1	pro.f1
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1	-0.179^{***}	-0.445^{***}	-0.574^{***}	-0.276^{***}	0.015	-0.046
	(0.045)	(0.114)	(0.090)	(0.069)	(0.021)	(0.055)
ioq2	-0.141^{***}	-0.250^{***}	-0.275^{***}	-0.052	0.044^{***}	0.061
	(0.033)	(0.077)	(0.056)	(0.045)	(0.013)	(0.037)
ioq3_small	0.237^{***}	0.409^{***}	0.666^{***}	0.369^{***}	0.082^{***}	0.280^{***}
	(0.063)	(0.137)	(0.093)	(0.088)	(0.025)	(0.073)
ioq3_block	-0.106^{**}	-0.150	-0.190^{***}	-0.167^{***}	0.024	0.029
	(0.041)	(0.093)	(0.065)	(0.053)	(0.017)	(0.049)
Observations	39,236	39,236	39,236	39,236	39,236	39,236
Adjusted R^2	0.170	0.379	0.182	0.217	0.173	0.211

Panel B: Investors classified according to their portfolio churn ratios

	Dependent variable:					
	com.f1	div.f1	emp.f1	env.f1	hum.f1	pro.f1
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1_alt	-0.179^{***}	-0.370^{***}	-0.561^{***}	-0.240^{***}	0.022	-0.049
	(0.046)	(0.118)	(0.092)	(0.070)	(0.021)	(0.058)
ioq2_alt	-0.170^{***}	-0.519^{***}	-0.328^{***}	-0.276^{***}	0.050^{***}	0.031
	(0.039)	(0.093)	(0.065)	(0.051)	(0.015)	(0.041)
ioq3_small_alt	0.167^{***}	0.447^{***}	0.483^{***}	0.461^{***}	0.073^{***}	0.262^{***}
	(0.050)	(0.108)	(0.074)	(0.071)	(0.020)	(0.059)
ioq3_block_alt	-0.120^{***}	-0.155^{*}	-0.233^{***}	-0.167^{***}	0.018	0.019
	(0.038)	(0.087)	(0.062)	(0.050)	(0.016)	(0.045)
Observations	39,236	39,236	39,236	39,236	39,236	39,236
Adjusted R^2	0.170	0.379	0.181	0.219	0.173	0.211

Table IA5: Disaggregated institutional ownership with additional controls (Part 1)

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on different institutional ownership variables. Columns 1 and 2 show the results for the net KLD score (strengths minus concerns), columns 3 and 4 show the strengths-only KLD score, and columns 5 and 6 show the concerns-only KLD score. Investors are classified into short-term (ioq1), medium-term (ioq2), and long-term (ioq3) investors according to their portfolio durations. Long-term ownership is split into ownership of long-term blockholders (ioq3_block) and into ownership of long-term investors holding small ownership stakes (ioq3_small) in some columns. All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	totscore_ng.f1		totstr_ng.f1		totcon_ng.f1	
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1	-1.346^{***}	-1.459^{***}	-1.148^{***}	-1.206^{***}	0.225	0.277^{*}
	(0.261)	(0.262)	(0.209)	(0.211)	(0.166)	(0.167)
ioq2	-0.541^{***}	-0.841^{***}	-1.187^{***}	-1.338^{***}	-0.591^{***}	-0.447^{***}
	(0.166)	(0.170)	(0.141)	(0.145)	(0.101)	(0.105)
ioq3	0.036		-0.758^{***}		-0.756^{***}	
	(0.178)		(0.150)		(0.106)	
ioq3_small		1.620^{***}		0.061		-1.497^{***}
		(0.314)		(0.262)		(0.195)
ioq3_block		-0.704^{***}		-1.172^{***}		-0.438^{***}
		(0.202)		(0.175)		(0.129)
io_srifunds	18.741^{***}	17.631^{***}	22.698^{***}	22.120^{***}	3.590^{*}	4.103^{*}
	(3.658)	(3.641)	(3.063)	(3.053)	(2.161)	(2.152)
log_assets	0.287^{***}	0.254^{***}	0.718^{***}	0.700^{***}	0.426^{***}	0.440^{***}
	(0.036)	(0.036)	(0.031)	(0.031)	(0.022)	(0.022)
roa	0.446	0.408	-0.936^{**}	-0.955^{**}	-1.350^{***}	-1.332^{***}
	(0.465)	(0.463)	(0.374)	(0.373)	(0.315)	(0.315)
cash_holding	0.441^{**}	0.483^{***}	0.951^{***}	0.972^{***}	0.469^{***}	0.449^{***}
	(0.173)	(0.172)	(0.148)	(0.148)	(0.100)	(0.100)
cash_dividends	2.889^{***}	2.528^{**}	4.470^{***}	4.269^{***}	1.589^{**}	1.746^{***}
	(0.991)	(0.982)	(0.892)	(0.885)	(0.621)	(0.619)
debt	-0.404^{***}	-0.293^{**}	-0.799^{***}	-0.739^{***}	-0.354^{***}	-0.404^{***}
	(0.149)	(0.149)	(0.132)	(0.132)	(0.103)	(0.105)
book_market	-0.239^{***}	-0.210^{***}	-0.344^{***}	-0.328^{***}	-0.083^{**}	-0.096^{***}
	(0.053)	(0.053)	(0.044)	(0.044)	(0.034)	(0.034)
age	0.0004	−0.001	0.012^{***}	0.011^{***}	0.011^{***}	0.012^{***}
	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
stock_ret	-1.214^{***}	-1.084^{***}	-0.546^{**}	-0.485^{*}	0.701^{***}	0.634^{***}
	(0.342)	(0.340)	(0.272)	(0.272)	(0.222)	(0.223)
liq	-0.015^{*}	-0.016^{*}	-0.026^{***}	-0.026^{***}	-0.011^{***}	-0.010^{***}
	(0.008)	(0.008)	(0.009)	(0.009)	(0.003)	(0.003)
growth	−0.043	−0.043	-0.146^{***}	-0.146^{***}	-0.099^{***}	-0.100^{***}
	(0.035)	(0.035)	(0.029)	(0.029)	(0.022)	(0.022)
capex	1.587^{**}	1.576^{**}	1.103^{**}	1.098^{**}	−0.548	−0.543
	(0.645)	(0.643)	(0.440)	(0.440)	(0.458)	(0.456)
ppa	0.335	0.327	0.269	0.266	−0.061	−0.056
	(0.254)	(0.253)	(0.201)	(0.201)	(0.161)	(0.161)
cash_flow	0.169	0.159	1.082^{***}	1.078^{***}	0.898^{***}	0.904^{***}
	(0.496)	(0.494)	(0.402)	(0.400)	(0.333)	(0.332)
analyst_coverage	0.037^{***}	0.035^{***}	0.028^{***}	0.026^{***}	-0.009^{***}	-0.008^{**}
	(0.006)	(0.006)	(0.005)	(0.005)	(0.003)	(0.003)
analyst_error	0.038	0.065	0.068	0.082^{*}	0.047	0.034
	(0.056)	(0.055)	(0.044)	(0.044)	(0.041)	(0.040)
Observations	30,875	30,875	30,875	30,875	30,875	30,875
Adjusted R^2	0.243	0.246	0.432	0.433	0.383	0.384

Table IA6: Disaggregated institutional ownership with additional controls (Part 2)

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on different institutional ownership variables. Columns 1 and 2 show the results for the net KLD score (strengths minus concerns), columns 3 and 4 show the strengths-only KLD score, and columns 5 and 6 show the concerns-only KLD score. Investors are classified into short-term (ioq1_alt), medium-term (ioq2_alt), and long-term (ioq3_alt) investors according to their portfolio churn ratios. Long-term ownership is split into ownership of long-term blockholders (ioq3_block_alt) and into ownership of long-term investors holding small ownership stakes (ioq3_small_alt) in some columns. All models include year and industry (sic3) fixed effects. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	totscore_ng.f1		totstr_ng.f1		totcon_ng.f1	
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1_alt	-1.133^{***}	-1.405^{***}	-1.135^{***}	-1.270^{***}	0.031	0.161
	(0.270)	(0.272)	(0.211)	(0.214)	(0.175)	(0.176)
ioq2_alt	-0.945^{***}	-1.273^{***}	-1.506^{***}	-1.670^{***}	-0.499^{***}	-0.343^{***}
	(0.195)	(0.197)	(0.165)	(0.169)	(0.115)	(0.118)
ioq3_alt	0.089		-0.724^{***}		-0.776^{***}	
	(0.156)		(0.130)		(0.093)	
ioq3_small_alt		1.392^{***}		-0.064		-1.388^{***}
		(0.247)		(0.210)		(0.152)
ioq3_block_alt		-0.862^{***}		-1.228^{***}		-0.345^{***}
		(0.189)		(0.162)		(0.119)
io_srifunds	18.923^{***}	18.095^{***}	22.847^{***}	22.434^{***}	3.551	3.946^{*}
	(3.656)	(3.636)	(3.060)	(3.049)	(2.168)	(2.164)
log_assets	0.285^{***}	0.249^{***}	0.716^{***}	0.697^{***}	0.425^{***}	0.441^{***}
	(0.036)	(0.036)	(0.032)	(0.031)	(0.022)	(0.022)
roa	0.485	0.433	-0.911^{**}	-0.939^{**}	-1.366^{***}	-1.342^{***}
	(0.466)	(0.464)	(0.375)	(0.375)	(0.315)	(0.315)
cash_holding	0.418^{**}	0.452^{***}	0.939^{***}	0.956^{***}	0.481^{***}	0.464^{***}
	(0.172)	(0.172)	(0.148)	(0.147)	(0.100)	(0.100)
cash_dividends	2.961^{***}	2.694^{***}	4.470^{***}	4.320^{***}	1.518^{**}	1.631^{***}
	(0.992)	(0.986)	(0.892)	(0.888)	(0.622)	(0.622)
debt	-0.406^{***}	-0.286^{*}	-0.797^{***}	-0.733^{***}	-0.350^{***}	-0.404^{***}
	(0.149)	(0.150)	(0.132)	(0.133)	(0.103)	(0.104)
book_market	-0.237^{***}	-0.198^{***}	-0.339^{***}	-0.319^{***}	-0.081^{**}	-0.099^{***}
	(0.053)	(0.053)	(0.044)	(0.044)	(0.034)	(0.034)
age	0.001	-0.0002	0.012^{***}	0.011^{***}	0.011^{***}	0.011^{***}
	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
stock_ret	-1.343^{***}	-1.382^{***}	-0.569^{**}	-0.595^{**}	0.804^{***}	0.817^{***}
	(0.341)	(0.341)	(0.272)	(0.271)	(0.221)	(0.221)
liq	-0.015^{*}	-0.015^{*}	-0.026^{***}	-0.026^{***}	-0.011^{***}	-0.010^{***}
	(0.008)	(0.008)	(0.009)	(0.009)	(0.003)	(0.003)
growth	-0.046	-0.055	-0.146^{***}	-0.150^{***}	-0.096^{***}	-0.093^{***}
	(0.035)	(0.035)	(0.029)	(0.029)	(0.022)	(0.022)
capex	1.581^{**}	1.532^{**}	1.114^{**}	1.089^{**}	-0.532	-0.509
	(0.645)	(0.644)	(0.440)	(0.440)	(0.458)	(0.457)
ppa	0.349	0.365	0.274	0.284	-0.070	-0.076
	(0.254)	(0.253)	(0.201)	(0.201)	(0.161)	(0.160)
cash_flow	0.118	0.100	1.054^{***}	1.048^{***}	0.921^{***}	0.932^{***}
	(0.497)	(0.495)	(0.403)	(0.402)	(0.332)	(0.332)
analyst_coverage	0.036^{***}	0.033^{***}	0.027^{***}	0.025^{***}	-0.009^{***}	-0.007^{**}
	(0.006)	(0.006)	(0.005)	(0.005)	(0.003)	(0.003)
analyst_error	0.038	0.074	0.067	0.084^{*}	0.046	0.028
	(0.056)	(0.055)	(0.044)	(0.044)	(0.041)	(0.040)
Observations	30,875	30,875	30,875	30,875	30,875	30,875
Adjusted R^2	0.243	0.246	0.432	0.434	0.383	0.384

Table IA7: Disaggregated institutional ownership with firm fixed effects (Part 1)

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on institutional ownership variables. All dependent variables are KLD scores that include only those KLD ratings that continuously existed from 1991 to 2009. Columns 1 and 2 show the results for the net KLD score (strengths minus concerns), columns 3 and 4 show the strengths-only KLD score, and columns 5 and 6 show the concerns-only KLD score. All uneven columns show the results with industry (sic3) and year fixed effects, and all even columns show the results with firm and year fixed effects. Institutional ownership is split into ownership of short-term investors (ioq1), medium-term investors (ioq2), long-term non-blockholders (ioq3_small), and long-term blockholders (ioq3_block). Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	totscore_perm.f1		totstr_perm.f1		totcon_perm.f1	
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1	-1.382^{***}	-0.519^{***}	-1.119^{***}	-0.923^{***}	0.312^{**}	-0.332^{**}
	(0.215)	(0.192)	(0.164)	(0.144)	(0.155)	(0.144)
ioq2	-0.492^{***}	0.211	-0.913^{***}	-0.391^{***}	-0.406^{***}	-0.598^{***}
	(0.141)	(0.144)	(0.125)	(0.104)	(0.097)	(0.110)
ioq3_small	1.995^{***}	0.516^{**}	0.366^{*}	-0.014	-1.631^{***}	-0.565^{***}
	(0.263)	(0.229)	(0.221)	(0.167)	(0.188)	(0.177)
ioq3_block	-0.093	0.105	-0.552^{***}	-0.578^{***}	-0.436^{***}	-0.672^{***}
	(0.172)	(0.165)	(0.142)	(0.121)	(0.128)	(0.127)
io_srifunds	10.781^{***}	-1.391	15.808^{***}	3.838^{**}	4.583^{**}	5.359^{***}
	(3.055)	(2.358)	(2.649)	(1.865)	(1.996)	(1.795)
log_assets	-0.088^{***}	-0.081	0.381^{***}	0.095^{**}	0.470^{***}	0.173^{***}
	(0.026)	(0.055)	(0.023)	(0.037)	(0.019)	(0.040)
roa	0.547^{***}	0.367^{***}	0.046	0.023	-0.508^{***}	-0.363^{***}
	(0.093)	(0.086)	(0.075)	(0.059)	(0.065)	(0.064)
cash_holding	0.178	-0.289^{**}	0.441^{***}	0.024	0.244^{***}	0.313^{***}
	(0.131)	(0.131)	(0.118)	(0.112)	(0.086)	(0.096)
cash_dividends	0.643	0.461	1.939^{***}	0.344	1.360^{***}	-0.054
	(0.671)	(0.533)	(0.625)	(0.427)	(0.497)	(0.415)
debt	-0.019	0.104	-0.465^{***}	-0.018	-0.433^{***}	-0.138
	(0.123)	(0.144)	(0.109)	(0.107)	(0.093)	(0.106)
book_market	-0.064	-0.038	-0.175^{***}	-0.087^{***}	-0.103^{***}	-0.040
	(0.040)	(0.036)	(0.031)	(0.022)	(0.027)	(0.027)
age	-0.007^{***}	0.028	0.006^{***}	-0.016	0.013^{***}	-0.044^{*}
	(0.002)	(0.037)	(0.002)	(0.023)	(0.002)	(0.024)
Fixed Effects	ind-year	firm-year	ind-year	firm-year	ind-year	firm-year
Observations	28,535	28,535	28,535	28,535	28,535	28,535
Adjusted R^2	0.216	0.664	0.344	0.772	0.430	0.735

Table IA8: Disaggregated institutional ownership with firm fixed effects (Part 2)

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of KLD scores on institutional ownership variables. All dependent variables are KLD scores that include only those KLD ratings that continuously existed from 1991 to 2009. Columns 1 and 2 show the results for the net KLD score (strengths minus concerns), columns 3 and 4 show the strengths-only KLD score, and columns 5 and 6 show the concerns-only KLD score. All uneven columns show the results with industry (sic3) and year fixed effects, and all even columns show the results with firm and year fixed effects. Institutional ownership is split into ownership of short-term investors (ioq1_alt), medium-term investors (ioq2_alt), long-term non-blockholders (ioq3_small_alt), and long-term blockholders (ioq3_block_alt). Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Dependent variable:					
	totscore_perm.f1		totstr_perm.f1		totcon_perm.f1	
	(1)	(2)	(3)	(4)	(5)	(6)
ioq1_alt	-1.421^{***}	-0.363^{*}	-1.224^{***}	-0.909^{***}	0.213	-0.519^{***}
	(0.224)	(0.207)	(0.174)	(0.157)	(0.159)	(0.152)
ioq2_alt	-0.551^{***}	0.056	-0.910^{***}	-0.454^{***}	-0.323^{***}	-0.482^{***}
	(0.155)	(0.152)	(0.133)	(0.109)	(0.110)	(0.116)
ioq3_small_alt	1.504^{***}	0.566^{***}	0.057	-0.109	-1.435^{***}	-0.689^{***}
	(0.213)	(0.191)	(0.176)	(0.130)	(0.152)	(0.148)
ioq3_block_alt	-0.150	0.186	-0.592^{***}	-0.486^{***}	-0.439^{***}	-0.681^{***}
	(0.165)	(0.154)	(0.136)	(0.112)	(0.118)	(0.118)
io_srifunds	11.355^{***}	-1.442	16.192^{***}	3.757^{**}	4.368^{**}	5.322^{***}
	(3.057)	(2.364)	(2.651)	(1.872)	(2.002)	(1.795)
log_assets	-0.085^{***}	-0.079	0.384^{***}	0.101^{***}	0.470^{***}	0.175^{***}
	(0.026)	(0.055)	(0.024)	(0.037)	(0.019)	(0.039)
roa	0.513^{***}	0.362^{***}	0.032	0.022	-0.489^{***}	-0.359^{***}
	(0.092)	(0.085)	(0.075)	(0.059)	(0.065)	(0.064)
cash_holding	0.138	-0.301^{**}	0.424^{***}	0.017	0.267^{***}	0.321^{***}
	(0.131)	(0.132)	(0.118)	(0.113)	(0.086)	(0.097)
cash_dividends	0.880	0.492	2.052^{***}	0.369	1.231^{**}	-0.065
	(0.676)	(0.537)	(0.630)	(0.429)	(0.499)	(0.417)
debt	-0.030	0.103	-0.475^{***}	-0.022	-0.430^{***}	-0.138
	(0.123)	(0.144)	(0.110)	(0.107)	(0.093)	(0.106)
book_market	-0.056	-0.038	-0.172^{***}	-0.089^{***}	-0.107^{***}	-0.042
	(0.039)	(0.036)	(0.031)	(0.022)	(0.027)	(0.027)
age	-0.006^{***}	0.028	0.006^{***}	-0.017	0.013^{***}	-0.044^{*}
	(0.002)	(0.037)	(0.002)	(0.023)	(0.002)	(0.025)
Fixed Effects	ind-year	firm-year	ind-year	firm-year	ind-year	firm-year
Observations	28,535	28,535	28,535	28,535	28,535	28,535
Adjusted R^2	0.214	0.664	0.344	0.772	0.430	0.735

Table IA9: Alternative measures of CSR

This table shows the estimated marginal effects (and standard errors in parenthesis) from probit regressions. Panel A investigates whether a firm was targeted by a shareholder proposal on CSR issues in a given year or not. Shareholder proposal data comes from RiskMetrics, covering data on shareholder proposals on CSR issues between 1997 and 2013. Panel B examines whether a firm was a member of the Dow Jones Sustainability Index in a given year or not. Control (non-treated) firms are matched on industry, market cap, and book-to-market. Institutional ownership is split into ownership of short-term investors (ioq1_alt), medium-term investors (ioq2_alt), long-term non-blockholders (ioq3_small_alt), and long-term blockholders (ioq3_block_alt). McFadden's Pseudo R^2 are presented for every model. All models include year dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Shareholder proposals on CSR issues

	Dependent variable:	
	sri_proposal.f1	
	(1)	(2)
ioq1_alt	0.253^{***}	0.167^{*}
	(0.089)	(0.092)
ioq2_alt	0.438^{***}	0.300^{***}
	(0.058)	(0.062)
ioq3_alt	0.512^{***}	
	(0.038)	
ioq3_small_alt		0.852^{***}
		(0.056)
ioq3_block_alt		0.179^{***}
		(0.056)
io_srifunds	1.493^{**}	1.038
	(0.715)	(0.704)
log_assets	0.065^{***}	0.055^{***}
	(0.006)	(0.006)
roa	0.197^{**}	0.139^{*}
	(0.085)	(0.077)
cash_holding	−0.074	−0.059
	(0.051)	(0.050)
cash_dividends	0.926^{***}	0.929^{***}
	(0.244)	(0.238)
debt	0.092^{**}	0.130^{***}
	(0.041)	(0.041)
book_market	0.034^{*}	0.053^{***}
	(0.020)	(0.020)
age	0.004^{***}	0.003^{***}
	(0.0004)	(0.0004)
Pseudo R2	0.21	0.22
Observations	12,468	12,468

Panel B: Dow Jones Sustainability Index

	Dependent variable:	
	djsi.f1	
	(1)	(2)
ioq1_alt	−0.231	−0.306
	(0.186)	(0.192)
ioq2_alt	0.247^{**}	0.156
	(0.118)	(0.129)
ioq3_alt	0.346^{***}	
	(0.047)	
ioq3_small_alt		0.494^{***}
		(0.068)
ioq3_block_alt		0.200^{**}
		(0.080)
io_srifunds	1.094	0.834
	(1.054)	(1.040)
log_assets	0.060^{***}	0.054^{***}
	(0.008)	(0.008)
roa	0.160	0.118
	(0.106)	(0.103)
cash_holding	−0.060	−0.051
	(0.062)	(0.062)
cash_dividends	−0.140	−0.135
	(0.317)	(0.321)
debt	0.054	0.064
	(0.046)	(0.046)
book_market	-0.048^{*}	−0.042
	(0.027)	(0.027)
age	−0.0002	−0.0003
	(0.0004)	(0.0004)
djsi	0.835^{***}	0.830^{***}
	(0.015)	(0.016)
Pseudo R2	0.65	0.66
Observations	4,572	4,572

Table IA10: Voting results of shareholder proposals on CSR issues

This table shows the maximum likelihood estimated coefficients (and standard errors in parenthesis) from the outcome equation of a Heckman-style selection model. The dependent variables of the outcome equations are the voting results (percentage of votes in favor) of the CSR-related shareholder proposals that came to vote. The selection equation, which is omitted for brevity, regresses a dummy indicating whether a proposal came to vote on the same variables used in the outcome equation. Panel A shows the results of the outcome equation for investors classified according to their portfolio durations, and Panel B shows investors classified according to their portfolio churn ratios. Institutional ownership is split into ownership of short-term investors (ioq1, ioq1_alt), medium-term investors (ioq2, ioq2_alt), long-term investors (ioq3, ioq3_alt), long-term non-blockholders (ioq3_small, ioq3_small_alt), and long-term blockholders (ioq3_block, ioq3_block_alt). All models include year dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Investors classified according to their portfolio durations

	Dependent variable:	
	vote_pct.f1	
	(1)	(2)
ioq1	6.095	5.459
	(10.302)	(10.225)
ioq2	8.980*	6.709
	(4.985)	(5.191)
ioq3	5.024	
	(4.557)	
ioq3_small		18.239***
		(7.051)
ioq3_block		−2.658
		(4.171)
io_srifunds	−24.216	−25.185
	(41.558)	(40.161)
log_assets	−0.860***	−1.275***
	(0.323)	(0.354)
roa	−9.083	−10.863*
	(5.941)	(6.109)
cash_holding	−7.549	−7.446
	(4.865)	(4.801)
cash_dividends	−33.667**	−39.657**
	(17.002)	(17.160)
debt	−7.432***	−6.404***
	(2.476)	(2.474)
book_market	1.745*	2.075**
	(0.960)	(0.967)
age	0.026	0.024
	(0.022)	(0.022)
Observations	4,392	4,392

Panel B: Investors classified according to their churn ratios

	Dependent variable:	
	vote_pct.f1	
	(1)	(2)
ioq1_alt	27.775***	27.384***
	(8.561)	(8.464)
ioq2_alt	−2.475	−4.908
	(5.026)	(5.096)
ioq3_alt	8.358**	
	(3.984)	
ioq3_small_alt		17.661***
		(5.396)
ioq3_block_alt		−1.363
		(4.417)
io_srifunds	−18.616	−16.302
	(41.385)	(39.447)
log_assets	−0.836***	−1.209***
	(0.311)	(0.323)
roa	−9.068	−11.267*
	(5.938)	(6.128)
cash_holding	−8.393*	−8.796*
	(4.873)	(4.795)
cash_dividends	−30.023*	−32.159*
	(16.718)	(16.699)
debt	−7.945***	−7.149***
	(2.473)	(2.438)
book_market	1.812**	2.143**
	(0.924)	(0.930)
age	0.022	0.020
	(0.022)	(0.021)
Observations	4,392	4,392

Table IA11: Earnings management cross-sectional evidence (alternative EM model)

This table shows the estimated coefficients (and standard errors in parenthesis) from OLS panel regressions of the net KLD score on different ownership variables. The coefficients of firm controls are omitted for brevity. In both panels, I split firms yearly into two subsamples. A firm is assigned to the low earnings management subsample ("EM Low") if its absolute level of discretionary accruals is lower than the median, and otherwise the firm is assigned to the high earnings management subsample ("EM High"). Discretionary accruals are calculated according to the performance-matched modified Jones model, as described in Appendix B. In Panel A, I regress the net KLD score on short-term ownership (ioq1 and ioq1_alt), investor duration (in_duration), and investor turnover (in_turnover). In Panel B, I regress the net KLD score on long-term blockholder ownership (ioq3_block and ioq3_block_alt), ownership of the largest institutional investor (io_top1), and ownership of dedicated investors (io_ded). All models include firm controls, year dummies, and industry (sic3) dummies. Standard errors are clustered on the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Short-term pressure exerted by short-term investors

	Dependent variable:							
	totscore_ng.f1							
	EM Low	EM High	EM Low	EM High	EM Low	EM High	EM Low	EM High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
io_total	−0.242	0.009	−0.230	−0.009	−0.329**	−0.185	−0.415**	−0.340**
	(0.164)	(0.143)	(0.167)	(0.145)	(0.163)	(0.138)	(0.162)	(0.139)
ioq1	−1.294***	−2.291***						
	(0.395)	(0.320)						
ioq1_alt			−1.189***	−1.878***				
			(0.411)	(0.326)				
in_duration					0.096***	0.161***		
					(0.033)	(0.025)		
in_turnover							−2.384***	−3.700***
							(0.720)	(0.531)
Observations	15,221	15,200	15,221	15,200	15,180	15,159	15,180	15,158
Adjusted R^2	0.232	0.234	0.232	0.233	0.232	0.235	0.231	0.234

Panel B: Monitoring by long-term blockholders

	Dependent variable:							
	totscore_ng.f1							
	EM Low	EM High	EM Low	EM High	EM Low	EM High	EM Low	EM High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
io_total	−0.265	−0.231	−0.256	−0.219	−0.182	−0.154	−0.229	−0.244*
	(0.167)	(0.147)	(0.169)	(0.153)	(0.165)	(0.144)	(0.163)	(0.138)
ioq3_block	−0.518*	−0.281						
	(0.274)	(0.243)						
ioq3_block_alt			−0.493*	−0.283				
			(0.267)	(0.236)				
io_top1					−1.829***	−1.288***		
					(0.524)	(0.486)		
io_ded							−1.186***	−0.379
							(0.380)	(0.336)
Observations	15,221	15,200	15,221	15,200	15,221	15,200	15,221	15,200
Adjusted R^2	0.232	0.231	0.232	0.231	0.233	0.231	0.233	0.231

Table IA12: Shareholder value impact of ESG reputational risks

This table shows the results of an event study based on ESG reputational risk events collected by RepRisk. An event is a news series about an ESG incident that has a positive number between 1 and 52, where a higher number indicates that the event bears a higher reputational risk for the firm. The sample contains 15,746 events, which have a mean of 10.8 points and a median of 7.0 points on average. Assuming that an event happens exactly in the middle of a month, I proceed with the following event study. First, I choose a subset of events that have a minimum of X event points (reprisks(>=X)). Second, for every event, I estimate the normal stock returns of a firm in a pre-event window ranging from 300 trading days to 50 trading days prior to the event. Using daily returns, I estimate the coefficients of the pre-event regression using either the market model (market-model) or the Fama/French/Carhart 4-Factor model (4factor-model). Third, I use the saved coefficients from the pre-event regression to calculate the event's cumulative abnormal return (CAR) in an event window covering 20 or 30 trading days ([-10,+10] or [-15,+15]). In addition, I calculate a variance for the CAR by multiplying the variance of the residuals of the pre-event regression with the number of trading days in the event window. Fourth, I calculate a t-statistic for the CAR by dividing $(\sum CAR)/N$ by $\sqrt{(\sum Var(CAR))/N^2}$, where N is the number of events. Fifth, for robustness, I calculate another t-statistic for the CAR by regressing the standardized CAR (CAR divided by the standard deviation of the CAR) on an intercept (with standard errors clustered on the firm level). The presented table shows different specifications of the event study in each row. Column 1 shows the model specification, column 2 gives the number of events, column 3 presents the average CAR of an event in percentage, column 4 present the t-statistic calculated with the formula described above, and column 5 shows the robust t-statistic estimated by regressing the standardized CAR on an intercept. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

name	events	car	t	treg
[-10;+10] market-model reprisks(>=1)	13443	-0.353	-4.25***	-5.06***
[-10;+10] 4factor-model reprisks(>=1)	13443	-0.337	-4.24***	-5.34***
[-15;+15] market-model reprisks(>=1)	13425	-0.519	-5.15***	-5.15***
[-15;+15] 4factor-model reprisks(>=1)	13425	-0.531	-5.50***	-5.70***
[-10;+10] market-model reprisks(>=10)	4815	-0.440	-2.87***	-3.35***
[-10;+10] 4factor-model reprisks(>=10)	4815	-0.406	-2.75***	-3.11***
[-15;+15] market-model reprisks(>=10)	4806	-0.566	-3.04***	-2.84***
[-15;+15] 4factor-model reprisks(>=10)	4806	-0.691	-3.86***	-3.40***
[-10;+10] market-model reprisks(>=20)	2545	-0.604	-2.63***	-3.04***
[-10;+10] 4factor-model reprisks(>=20)	2545	-0.588	-2.66***	-2.96***
[-15;+15] market-model reprisks(>=20)	2538	-0.741	-2.66***	-2.46**
[-15;+15] 4factor-model reprisks(>=20)	2538	-0.910	-3.39***	-3.05***
[-10;+10] market-model reprisks(>=30)	1128	-2.116	-5.80***	-4.59***
[-10;+10] 4factor-model reprisks(>=30)	1128	-1.967	-5.59***	-4.23***
[-15;+15] market-model reprisks(>=30)	1125	-2.346	-5.31***	-4.21***
[-15;+15] 4factor-model reprisks(>=30)	1125	-2.433	-5.72***	-4.36***
[-10;+10] market-model reprisks(>=40)	191	-3.741	-4.28***	-3.02***
[-10;+10] 4factor-model reprisks(>=40)	191	-3.608	-4.27***	-2.82***
[-15;+15] market-model reprisks(>=40)	190	-2.667	-2.53**	-2.11**
[-15;+15] 4factor-model reprisks(>=40)	190	-2.549	-2.50**	-2.06**

Table IA13: Summary statistics for the RepRisk sample

This table presents the descriptive statistics for the RepRisk sample. All variables are defined in Appendix A. For every variable, the mean, median, standard deviation (std), 10%-quantile (st10), 90%-quantile (st90), and the number of observations (obs) are presented. All variables are winsorized at 1% and 99%.

name	mean	median	std	st10	st90	obs
reprisks.f1	9.264	0	13.897	0	32	14,947
log_reprisks.f1	1.186	0	1.539	0	3.497	14,947
log_reprisks_loss.f1	1.148	0	2.436	0	5.771	14,947
ioq1	0.076	0.057	0.070	0.003	0.169	14,947
ioq2	0.230	0.229	0.143	0.009	0.422	14,947
ioq3_block	0.112	0.087	0.108	0	0.270	14,947
ioq3_small	0.209	0.224	0.117	0.015	0.362	14,947
ioq1_alt	0.085	0.070	0.074	0.002	0.183	14,947
ioq2_alt	0.151	0.143	0.100	0.008	0.283	14,947
ioq3_block_alt	0.120	0.104	0.112	0	0.284	14,947
ioq3_small_alt	0.261	0.285	0.145	0.017	0.449	14,947
io_srifunds	0.003	0.001	0.007	0	0.010	14,947
log_assets	7.962	7.968	1.879	5.494	10.481	14,947
roa	0.017	0.038	0.158	-0.073	0.127	14,947
cash_holding	0.149	0.085	0.174	0.010	0.379	14,947
cash_dividends	0.015	0.003	0.029	0	0.041	14,947
debt	0.256	0.229	0.207	0.001	0.527	14,947
book_market	0.572	0.467	0.573	0.124	1.133	14,947
age	21.780	16.083	18.297	3.083	48	14,947